



**Lab No.** : MRD/11-03-2023/SR7393253  
**Patient Name** : BIJAYETA GUHA  
**Age** : 36 Y 0 M 2 D  
**Gender** : F

**Lab Add.** : Newtown, Kolkata-700156  
**Ref Dr.** : Dr.MEDICAL OFFICER  
**Collection Date:** 11/Mar/2023 11:19AM  
**Report Date** : 11/Mar/2023 05:09PM



Test Name	Result	Unit	Bio Ref. Interval	Method
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[PDF Attached](#)

**GLYCATED HAEMOGLOBIN (HBA1C) , EDTA WHOLE BLOOD**

GLYCATED HEMOGLOBIN (HBA1C)	4.9	%	***FOR BIOLOGICAL REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED REMARKS/NOTE WITH ADDITIONAL CLINICAL INFORMATION ***	
HbA1c (IFCC)	30.0	mmol/mol		HPLC

**Clinical Information and Laboratory clinical interpretation on Biological Reference Interval:**

Low risk / Normal / non-diabetic : <5.7% (NGSP) / < 39 mmol/mol (IFCC)  
 Pre-diabetes/High risk of Diabetes : 5.7%- 6.4% (NGSP) / 39 - < 48 mmol/mol (IFCC)  
 Diabetics-HbA1c level : >= 6.5% (NGSP) / > 48 mmol/mol (IFCC)

**Analyzer used : Bio-Rad-VARIANT TURBO 2.0**  
**Method : HPLC Cation Exchange**

**Recommendations for glycemic targets**

- Ø Patients should use self-monitoring of blood glucose (SMBG) and HbA1c levels to assess glycemic control.
- Ø The timing and frequency of SMBG should be tailored based on patients' individual treatment, needs, and goals.
- Ø Patients should undergo HbA1c testing at least twice a year if they are meeting treatment goals and have stable glycemic control.
- Ø If a patient changes treatment plans or does not meet his or her glycemic goals, HbA1c testing should be done quarterly.
- Ø **For most adults who are not pregnant, HbA1c levels should be <7% to help reduce microvascular complications and macrovascular disease . Action suggested >8% as it indicates poor control.**
- Ø Some patients may benefit from HbA1c goals that are stringent.

**Result alterations in the estimation has been established in many circumstances, such as after acute/ chronic blood loss, for example, after surgery, blood transfusions, hemolytic anemia, or high erythrocyte turnover; vitamin B<sub>12</sub>/ folate deficiency, presence of chronic renal or liver disease; after administration of high-dose vitamin E / C; or erythropoietin treatment.**

**Reference: Glycated hemoglobin monitoring BMJ 2006; 333:586-8**

**References:**

1. Chamberlain JJ, Rhinehart AS, Shaefer CF, et al. Diagnosis and management of diabetes: synopsis of the 2016 American Diabetes Association Standards of Medical Care in Diabetes. *Ann Intern Med.* Published online 1 March 2016. doi:10.7326/M15-3016.
2. Mosca A, Goodall I, Hoshino T, Jeppsson JO, John WG, Little RR, Miedema K, Myers GL, Reinauer H, Sacks DB, Weykamp CW. International Federation of Clinical Chemistry and Laboratory Medicine, IFCC Scientific Division. Global standardization of glycated hemoglobin measurement: the position of the IFCC Working Group. *Clin Chem Lab Med.* 2007;45(8):1077-1080.

**Dr NEEPA CHOWDHURY**  
 MBBS MD (Biochemistry)  
 Consultant Biochemist



Lab No. : SR7393253 Name : BIJAYETA GUHA Age/G : 36 Y 0 M 2 D / F Date : 11-03-2023

**SODIUM, BLOOD , GEL SERUM**

SODIUM,BLOOD 141.00 mEq/L 132 - 146 mEq/L ISE INDIRECT

**\*CHLORIDE, BLOOD , .**

CHLORIDE,BLOOD 105.00 mEq/L 99-109 mEq/L ISE INDIRECT

**POTASSIUM, BLOOD , GEL SERUM**

POTASSIUM,BLOOD 4.00 mEq/L 3.5-5.5 mEq/L ISE INDIRECT

**THYROID PANEL (T3, T4, TSH) , GEL SERUM**

T3-TOTAL (TRI IODOTHYRONINE) 0.79 ng/ml 0.60-1.81 ng/ml CLIA

T4-TOTAL (THYROXINE) 5.4 µg/dL 3.2-12.6 µg/dL CLIA

TSH (THYROID STIMULATING HORMONE) 2.03 µIU/mL 0.55-4.78 µIU/mL CLIA

Serum TSH levels exhibit a diurnal variation with the peak occurring during the night and the nadir, which approximates to 50% of the peak value, occurring between 1000 and 1600 hours.[1,2]

References:

- Bugallo MJ, Domingues RS, Pinto AC, Garrao A, Catarino AL, Ferreira T, Limbert E and Sobrinho L. Detection of thyroglobulin mRNA transcripts in peripheral blood of individuals with and without thyroid glands: evidence for thyroglobulin expression by blood cells. *Eur J Endocrinol* 2001;145:409-13.
- Bellantone R, Lombardi CP, Bossola M, Ferrante A,Princi P, Boscherini M et al. Validity of thyroglobulin mRNA assay in peripheral blood of postoperative thyroid carcinoma patients in predicting tumor recurrence varies according to the histologic type: results of a prospective study. *Cancer* 2001;92:2273-9.

**BIOLOGICAL REFERENCE INTERVAL: [ONLY FOR PREGNANT MOTHERS]**

Trimester specific TSH LEVELS during pregnancy:

FIRST TRIMESTER: 0.10 – 3.00 µ IU/mL

SECOND TRIMESTER: 0.20 -3.50 µ IU/mL

THIRD TRIMESTER : 0.30 -3.50 µ IU/mL

References:

- Erik K. Alexander, Elizabeth N. Pearce, Gregory A. Brent, Rosalind S. Brown, Herbert Chen, Chrysoula Dosiou, William A. Grobman, Peter Laurberg, John H. Lazarus, Susan J. Mandel, Robin P. Peeters, and Scott Sullivan. *Thyroid*. Mar 2017.315-389. <http://doi.org/10.1089/thy.2016.0457>
- Kalra S, Agarwal S, Aggarwal R, Ranabir S. Trimester-specific thyroid-stimulating hormone: An indian perspective. *Indian J Endocr Metab* 2018;22:1-4.

**GLUCOSE, FASTING , BLOOD, NAF PLASMA**

GLUCOSE,FASTING 90 mg/dL Impaired Fasting-100-125 Gluc Oxidase Trinder  
 .~Diabetes- >= 126.~Fasting is defined as no caloric intake for at least 8 hours.

*In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results from the same sample or in two separate test samples.*

Reference : ADA Standards of Medical Care in Diabetes – 2020. *Diabetes Care* Volume 43, Supplement 1.

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**Suraksha**  
DIAGNOSTICS

Lab No. : SR7393253

Name : BIJAYETA GUHA

Age/G : 36 Y 0 M 2 D / F

Date : 11-03-2023

Dr NEEPA CHOWDHURY  
MBBS MD (Biochemistry)  
Consultant Biochemist



Lab No. : SR7393253      Name : BIJAYETA GUHA      Age/G : 36 Y 0 M 2 D / F      Date : 11-03-2023

**CBC WITH PLATELET (THROMBOCYTE) COUNT , EDTA WHOLE BLOOD**

HEMOGLOBIN	<b>11.3</b>	g/dL	12 - 15	PHOTOMETRIC
WBC	7.3	*10 <sup>3</sup> /μL	4 - 10	DC detection method
RBC	4.03	*10 <sup>6</sup> /μL	3.8 - 4.8	DC detection method
PLATELET (THROMBOCYTE) COUNT	150	*10 <sup>3</sup> /μL	150 - 450*10 <sup>3</sup> /μL	DC detection method/Microscopy

**DIFFERENTIAL COUNT**

NEUTROPHILS	62	%	40 - 80 %	Flowcytometry/Microscopy
LYMPHOCYTES	30	%	20 - 40 %	Flowcytometry/Microscopy
MONOCYTES	06	%	2 - 10 %	Flowcytometry/Microscopy
EOSINOPHILS	02	%	1 - 6 %	Flowcytometry/Microscopy
BASOPHILS	00	%	0-0.9%	Flowcytometry/Microscopy

**CBC SUBGROUP**

HEMATOCRIT / PCV	<b>35.1</b>	%	36 - 46 %	Calculated
MCV	87.1	fl	83 - 101 fl	Calculated
MCH	28.0	pg	27 - 32 pg	Calculated
MCHC	32.2	gm/dl	31.5-34.5 gm/dl	Calculated
RDW - RED CELL DISTRIBUTION WIDTH	<b>15.3</b>	%	11.6-14%	Calculated
PDW-PLATELET DISTRIBUTION WIDTH	31.0	fL	8.3 - 25 fL	Calculated
MPV-MEAN PLATELET VOLUME	14.2		7.5 - 11.5 fl	Calculated

**ESR (ERYTHROCYTE SEDIMENTATION RATE) , EDTA WHOLE BLOOD**

1stHour	<b>25</b>	mm/hr	0.00 - 20.00 mm/hr	Westergren
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*Mansi Gulati*

Dr Mansi Gulati  
Consultant Pathologist  
MBBS, MD, DNB (Pathology)



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Name : BIJAYETA GUHA

Age/G : 36 Y 0 M 2 D / F

Date : 11-03-2023

**URINE ROUTINE ALL, ALL , URINE**

**PHYSICAL EXAMINATION**

COLOUR PALE YELLOW  
APPEARANCE HAZY

**CHEMICAL EXAMINATION**

pH	5.0	4.6 - 8.0	Dipstick (triple indicator method)
SPECIFIC GRAVITY	1.020	1.005 - 1.030	Dipstick (ion concentration method)
PROTEIN	NOT DETECTED	NOT DETECTED	Dipstick (protein error of pH indicators)/Manual
GLUCOSE	NOT DETECTED	NOT DETECTED	Dipstick(glucose-oxidase-peroxidase method)/Manual
KETONES (ACETOACETIC ACID, ACETONE)	NOT DETECTED	NOT DETECTED	Dipstick (Legals test)/Manual
BLOOD	NOT DETECTED	NOT DETECTED	Dipstick (pseudoperoxidase reaction)
BILIRUBIN	NEGATIVE	NEGATIVE	Dipstick (azo-diazo reaction)/Manual
UROBILINOGEN	NEGATIVE	NEGATIVE	Dipstick (diazonium ion reaction)/Manual
NITRITE	NEGATIVE	NEGATIVE	Dipstick (Griess test)
LEUCOCYTE ESTERASE	POSITIVE(++)	NEGATIVE	Dipstick (ester hydrolysis reaction)

**MICROSCOPIC EXAMINATION**

LEUKOCYTES (PUS CELLS)	3-5	/hpf	0-5	Microscopy
EPITHELIAL CELLS	12-14	/hpf	0-5	Microscopy
RED BLOOD CELLS	NOT DETECTED	/hpf	0-2	Microscopy
CAST	NOT DETECTED		NOT DETECTED	Microscopy
CRYSTALS	NOT DETECTED		NOT DETECTED	Microscopy
BACTERIA	PRESENT(+)		NOT DETECTED	Microscopy
YEAST	NOT DETECTED		NOT DETECTED	Microscopy

**Note:**

- All urine samples are checked for adequacy and suitability before examination.
- Analysis by urine analyzer of dipstick is based on reflectance photometry principle. Abnormal results of chemical examinations are confirmed by manual methods.
- The first voided morning clean-catch midstream urine sample is the specimen of choice for chemical and microscopic analysis.
- Negative nitrite test does not exclude urinary tract infections.
- Trace proteinuria can be seen in many physiological conditions like exercise, pregnancy, prolonged recumbency etc.
- False positive results for glucose, protein, nitrite, urobilinogen, bilirubin can occur due to use of certain drugs, therapeutic dyes, ascorbic acid, cleaning agents used in urine collection container.
- Discrepancy between results of leukocyte esterase and blood obtained by chemical methods with corresponding pus cell and red blood cell count by microscopy can occur due to cell lysis.
- Contamination from perineum and vaginal discharge should be avoided during collection, which may falsely elevate epithelial cell count and show presence of bacteria and/or yeast in the urine.

**BLOOD GROUP ABO+RH [GEL METHOD] , EDTA WHOLE BLOOD**

ABO	A	Gel Card
RH	POSITIVE	Gel Card

**TECHNOLOGY USED: GEL METHOD**

**ADVANTAGES :**

- Gel card allows simultaneous forward and reverse grouping.
- Card is scanned and record is preserved for future reference.
- Allows identification of Bombay blood group.
- Daily quality controls are run allowing accurate monitoring.

**Historical records check not performed.**



**Suraksha**  
DIAGNOSTICS

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DR. NEHA GUPTA  
MD, DNB (Pathology)  
Consultant Pathologist



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**PHOSPHORUS-INORGANIC, BLOOD , GEL SERUM**

PHOSPHORUS-INORGANIC,BLOOD 3.0 mg/dL 2.4-5.1 mg/dL Phosphomolybdate/UV

**TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .**

TOTAL PROTEIN 7.20 g/dL 5.7-8.2 g/dL BIURET METHOD  
 ALBUMIN 4.3 g/dL 3.2-4.8 g/dL BCG Dye Binding  
 GLOBULIN 2.90 g/dl 1.8-3.2 g/dl Calculated  
 AG Ratio 1.48 1.0 - 2.5 Calculated

**GLUCOSE, PP , BLOOD, NAF PLASMA**

GLUCOSE,PP 109 mg/dL Impaired Glucose Tolerance-140 to 199. Diabetes>= 200. Gluc Oxidase Trinder

*The test should be performed as described by the WHO, using a glucose load containing the equivalent of 75-g anhydrous glucose dissolved in water. In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results from the same sample or in two separate test samples.*

Reference : ADA Standards of Medical Care in Diabetes – 2020. Diabetes Care Volume 43, Supplement 1.

**LIPID PROFILE , GEL SERUM**

CHOLESTEROL-TOTAL 165.00 mg/dL Desirable: < 200 mg/dL Enzymatic  
 Borderline high: 200-239 mg/dL  
 High: > or =240 mg/dL  
 TRIGLYCERIDES 74.00 mg/dL Normal:: < 150, GPO-Trinder  
 BorderlineHigh::150-199,  
 High:: 200-499,  
 VeryHigh::>500  
 HDL CHOLESTEROL 52.00 mg/dl < 40 - Low Elimination/catalase  
 40-59- Optimum  
 60 - High  
 LDL CHOLESTEROL DIRECT 98.0 mg/dL OPTIMAL : <100 mg/dL, Calculated  
 Near optimal/ above optimal :  
 100-129 mg/dL,  
 Borderline high : 130-159 mg/dL,  
 High : 160-189 mg/dL,  
 Very high : >=190 mg/dL  
 VLDL 15 mg/dl < 40 mg/dl Calculated  
 CHOL HDL Ratio 3.2 LOW RISK 3.3-4.4 AVERAGE RISK 4.47-7.1 MODERATE RISK 7.1-11.0 HIGH RISK >11.0 Calculated

Reference: National Cholesterol Education Program. Executive summary of the third report of The National Cholesterol Education Program (NCEP) Expert Panel on detection, evaluation, and treatment of high blood cholesterol in adults (Adult Treatment Panel III). JAMA. May 16 2001;285(19):2486-97.

**UREA,BLOOD , GEL SERUM** 21.4 mg/dL 19-49 mg/dL Urease with GLDH

**URIC ACID, BLOOD , GEL SERUM**

URIC ACID,BLOOD 5.30 mg/dL 2.6-6.0 mg/dL Uricase/Peroxidase

**CALCIUM, BLOOD**

CALCIUM,BLOOD 9.00 mg/dL 8.7-10.4 mg/dL Arsenazo III

**CREATININE, BLOOD**

0.60 mg/dL 0.5-1.1 mg/dL Jaffe, alkaline picrate, kinetic



**Suraksha**  
DIAGNOSTICS

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DR. ANANNYA GHOSH  
MBBS, MD (Biochemistry)  
Consultant Biochemist



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**Ref Dr.** : Dr.MEDICAL OFFICER  
**Collection Date:**  
**Report Date** : 11/Mar/2023 04:40PM



**DEPARTMENT OF CARDIOLOGY**  
**REPORT OF E.C.G.**

**DATA**

HEART RATE : 70 bpm  
PR INTERVAL : 170 ms  
QRS DURATION : 112 ms  
QT INTERVAL : 400 ms  
QTC INTERVAL : 432 ms

**AXIS**

P WAVE : 57 degree  
QRS WAVE : 32 degree  
T WAVE : 7 degree

**IMPRESSION** : **Normal sinus rhythm.**  
**Incomplete right bundle branch block.**

□

*ACRay*

Dr. A C RAY  
Department of Non-invasive  
Cardiology

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**Age** : 36 Y 0 M 2 D  
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**Lab Add.** :  
**Ref Dr.** : Dr.MEDICAL OFFICER  
**Collection Date:**  
**Report Date** : 12/Mar/2023 08:47AM



**X-RAY REPORT OF CHEST (PA)**


**FINDINGS :**

No active lung parenchymal lesion is seen.  
Both the hila are normal in size, density and position.  
Mediastinum is in central position. Trachea is in midline.  
Domes of diaphragm are smoothly outlined. Position is within normal limits.  
Lateral costo-phrenic angles are clear.  
The cardio-thoracic ratio is normal.  
Bony thorax reveals no definite abnormality.

**IMPRESSION :**

**Normal study.**

□

  
Dr. Anoop Sastry  
MBBS, DMRT(CAL)  
CONSULTANT RADIOLOGIST  
Registration No.: WB-36628

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**Collection Date:**  
**Report Date** : 13/Mar/2023 01:57PM



**DEPARTMENT OF ULTRASONOGRAPHY**  
**REPORT ON EXAMINATION OF WHOLE ABDOMEN**

**LIVER**

Liver is normal in size (126 mm) having normal shape, regular smooth outline and of homogeneous echotexture. No focal parenchymal lesion is evident. Intrahepatic biliary radicles are not dilated. Branches of portal vein are normal.

**PORTA**

The appearance of porta is normal. Common Bile duct is normal (4.0 mm) with no intraluminal pathology (Calculi /mass) could be detected at its visualised part. Portal vein is normal at porta (7.4 mm).

**GALL BLADDER**

Gallbladder is physiologically distended. Wall thickness appears normal. No intraluminal pathology (Calculi/mass) could be detected. Sonographic Murphy sign is negative.

**PANCREAS**

Echogenicity appears within limits, without any focal lesion. Shape, size & position appears normal. No Calcular disease noted. Pancreatic duct is not dilated. No peri-pancreatic collection of fluid noted.

**SPLEEN**

Spleen is normal in size (89 mm). Homogenous and smooth echotexture without any focal lesion. Splenic vein at hilum appears normal. No definite collaterals could be detected.

**KIDNEYS**

Both kidneys are normal in shape, size (Rt. kidney 95 x 42 mm. & Lt. kidney 117 x 51 mm.) axes & position. Cortical echogenicity appears normal maintaining cortico-medullary differentiation. Margin is regular and cortical thickness is uniform. No calcular disease noted. No hydronephrotic changes detected.

**URETERS**

Visualised part of upper ureters are not dilated.

**URINARY BLADDER**

Urinary bladder is distended, wall thickness appeared normal. No intraluminal pathology (calculi/mass) could be detected.

**UTERUS**

**Uterus is retroverted**, normal in size, measures 73 mm. x 36 mm. x 50 mm. Surfaces are smooth. Myometrial echotexture is homogeneous. No obvious focal mass is seen in myometrium. Endometrial echo is normal in thickness (12.6 mm.) and seen at midline. Cervix appears normal.

Pouch of Douglas is free.

**ADNEXA**

Adnexa appear clear with no obvious mass lesion could be detected.

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**OVARIES**

**Both ovaries are marginally bulky in size and multiple small follicles are noted peripherally with central echogenic stroma - features suggestive of polycystic ovaries.**

Right ovary measures : 31 mm x 20 mm x 28 mm vol. = 9.34 cc.

Left ovary measures : 32 mm x 21 mm x 25 mm vol. = 9.06 cc.

**IMPRESSION :**

**Bilateral polycystic ovaries.**

**Kindly note**

- *Ultrasound is not the modality of choice to rule out subtle bowel lesion.*
- *Please Intimate us for any typing mistakes and send the report for correction within 7 days.*
- *The science of Radiological diagnosis is based on the interpretation of various shadows produced by both the normal and abnormal tissues and are not always conclusive. Further biochemical and radiological investigation & clinical correlation is required to enable the clinician to reach the final diagnosis.*

*The report and films are not valid for medico-legal purpose.*

*Patient Identity not verified.*

**DR. H S MOHANTY**  
Consultant Radiologist  
MBBS , DNB (Radio-Diagnosis)

**Patient Data**

Sample ID: C02135013663  
 Patient ID: SR7393253  
 Name:  
 Physician:  
 Sex:  
 DOB:

**Analysis Data**

Analysis Performed: 11/MAR/2023 15:30:31  
 Injection Number: 5550U  
 Run Number: 130  
 Rack ID: 0006  
 Tube Number: 3  
 Report Generated: 11/MAR/2023 15:44:13  
 Operator ID: ASIT

Comments:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
Unknown	---	0.2	0.110	2807
A1a	---	0.8	0.162	9947
A1b	---	0.7	0.219	8744
F	---	1.2	0.271	15160
LA1c	---	1.6	0.397	20068
A1c	4.9	---	0.504	47887
P3	---	3.2	0.783	39437
P4	---	1.1	0.866	13604
Ao	---	87.2	0.997	1071208

Total Area: 1,228,862

**HbA1c (NGSP) = 4.9 %**      HbA1c (IFCC) = 30 mmol/mol

