MC-2743

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

Suraksha DIAGNOSTICS

Lab No.	: SRE/18-09-2024/SR9670457	**Lab Add.**	: Newtown,Kolkata-700156
Patient Name	: ARVIND SINGH	**Ref Dr.**	: Dr.MEDICAL OFFICER
Age	: 33 Y 0 M 0 D	**Collection Date**	: 18/Sep/2024 09:50AM
Gender	: M	Report Date	: 18/Sep/2024 02:39PM

DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
ALKALINE PHOSPHATASE , *GEL SERUM* (Method:IFCC standardization)	95	46-116	U/L
BILIRUBIN (DIRECT) (Method:Vanadate oxidation)	0.2	<0.2	mg/dL
POTASSIUM,BLOOD (Method:ISE INDIRECT)	4.5	3.5-5.5	mEq/L
CHLORIDE,BLOOD (Method:ISE INDIRECT)	103	99-109	mEq/L
PHOSPHORUS-INORGANIC,BLOOD (Method:Phosphomolybdate/UV)	3.2	2.4-5.1 mg/dL	mg/dL
GLUCOSE,FASTING (Method:Gluc Oxidase Trinder)	**119**	Impaired Fasting-100-125 .~Diabetes- >= 126.~Fasting is defined as no caloric intake for at least 8 hours.	mg/dL

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.

URIC ACID,BLOOD (Method:Uricase/Peroxidase)	5.8	3.5-7.2	mg/dL
SODIUM,BLOOD (Method:ISE INDIRECT)	137	132 - 146	mEq/L
CREATININE, BLOOD (Method:Jaffe, alkaline picrate, kinetic)	0.97	0.7-1.3	mg/dL
CALCIUM,BLOOD (Method:Arsenazo III)	9.3	8.7-10.4	mg/dL
BILIRUBIN (TOTAL) , *GEL SERUM*			
BILIRUBIN (TOTAL) (Method:Vanadate oxidation)	0.9	0.3-1.2	mg/dL

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

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DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit

Dr Neepa Chowdhury
MBBS, MD(Biochemistry)
SECTION DIRECTOR AND SENIOR CONSULTANT BIOCHEMIST
Reg no. WBMC 62456

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Gender	**:** M	Report Date	**:** 18/Sep/2024 03:23PM

DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
SGPT/ALT (Method:Modified IFCC)	**92**	7-40	U/L
TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .			
TOTAL PROTEIN (Method:BIURET METHOD)	7.6	5.7-8.2 g/dL	g/dL
ALBUMIN (Method:BCG Dye Binding)	4.5	3.2-4.8 g/dL	g/dL
GLOBULIN (Method:Calculated)	3.1	1.8-3.2	g/dl
AG Ratio (Method:Calculated)	1.45	1.0-2.5	
GLUCOSE,PP (Method:Gluc Oxidase Trinder)	**237**	Impaired Glucose Tolerance-140 to 199. Diabetes>= 200.	mg/dL

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 (Method:Enzymatic)	163	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	mg/dL
TRIGLYCERIDES (Method:GPO-Trinder)	124	Normal:: < 150, BorderlineHigh::150-199, High:: 200-499, VeryHigh::>500	mg/dL
HDL CHOLESTEROL (Method:Elimination/catalase)	**34**	< 40 - Low 40-59- Optimum 60 - High	mg/dl
LDL CHOLESTEROL DIRECT (Method:Elimination / Catalase)	**117**	OPTIMAL : <100 mg/dL, Near optimal/ above optimal : 100-129 mg/dL, Borderline high : 130-159 mg/dL, High : 160-189 mg/dL, Very high : >=190 mg/dL	mg/dL
VLDL (Method:Calculated)	12	< 40 mg/dl	mg/dl
CHOL HDL Ratio (Method:Calculated)	4.8	LOW RISK 3.3-4.4 AVERAGE RISK 4.47-7.1 MODERATE RISK 7.1-11.0 HIGH RISK >11.0	

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.*

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DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
SGOT/AST (Method:Modified IFCC)	**47**	13-40	U/L
UREA,BLOOD (Method:Urease with GLDH)	**17.1**	19-49	mg/dL
THYROID PANEL (T3, T4, TSH) , *GEL SERUM*			
T3-TOTAL (TRI IODOTHYRONINE) (Method:CLIA)	1.1	0.60-1.81 ng/ml	ng/ml
T4-TOTAL (THYROXINE) (Method:CLIA)	10.1	3.2-12.6	µg/dL
TSH (THYROID STIMULATING HORMONE) (Method:CLIA)	3.788	0.55-4.78	µIU/mL

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:

1. Bugalho 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.
2. 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:

1. *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*
2. *Kalra S, Agarwal S, Aggarwal R, Ranabir S. Trimester-specific thyroid-stimulating hormone: An indian perspective. Indian J Endocr Metab 2018;22:1-4.*

GLYCATED HAEMOGLOBIN (HBA1C) , *EDTA WHOLE BLOOD*			
GLYCATED HEMOGLOBIN (HBA1C)	6.6	***FOR BIOLOGICAL REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED REMARKS/NOTE WITH ADDITIONAL CLINICAL INFORMATION ***	%
HbA1c (IFCC) (Method:HPLC)	49		mmol/mol

Clinical Information and Laboratory clinical interpretation on Biological Reference Interval:
Low risk / Normal / non-diabetic : <5.7% (NGSP) / < 39 mmol/mol (IFCC)

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DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit

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_{12}/ 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.

PDF Attached

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

DR. ANANNYA GHOSH
MBBS, MD (Biochemistry)
Consultant Biochemist
Reg No. WBMC 73007

Lab No.	: SRE/18-09-2024/SR9670457	**Lab Add.**	: Newtown,Kolkata-700156
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Gender	: M	Report Date	: 18/Sep/2024 05:13PM

DEPARTMENT OF HAEMATOLOGY

Test Name	Result	Bio Ref. Interval	Unit
CBC WITH PLATELET (THROMBOCYTE) COUNT , *EDTA WHOLE BLOOD*			
HEMOGLOBIN (Method:PHOTOMETRIC)	15.6	13 - 17	g/dL
WBC (Method:DC detection method)	6.2	4 - 10	*10^3/µL
RBC (Method:DC detection method)	5.24	4.5 - 5.5	*10^6/µL
PLATELET (THROMBOCYTE) COUNT (Method:DC detection method/Microscopy)	248	150 - 450*10^3	*10^3/µL
DIFFERENTIAL COUNT			
NEUTROPHILS (Method:Flowcytometry/Microscopy)	50	40 - 80	%
LYMPHOCYTES (Method:Flowcytometry/Microscopy)	37	20 - 40	%
MONOCYTES (Method:Flowcytometry/Microscopy)	08	2 - 10	%
EOSINOPHILS (Method:Flowcytometry/Microscopy)	04	1 - 6	%
BASOPHILS (Method:Flowcytometry/Microscopy)	**01**	0-0.9	%
CBC SUBGROUP			
HEMATOCRIT / PCV (Method:Calculated)	47.7	40 - 50 %	%
MCV (Method:Calculated)	91	83 - 101 fl	fl
MCH (Method:Calculated)	29.8	27 - 32 pg	pg
MCHC (Method:Calculated)	32.8	31.5-34.5 gm/dl	gm/dl
RDW - RED CELL DISTRIBUTION WIDTH (Method:Calculated)	14	11.6-14%	%
PDW-PLATELET DISTRIBUTION WIDTH (Method:Calculated)	20.1	8.3 - 25 fL	fL
MPV-MEAN PLATELET VOLUME (Method:Calculated)	11.3	7.5 - 11.5 fl	
ESR (ERYTHROCYTE SEDIMENTATION RATE) , *EDTA WHOLE BLOOD*			
1stHour (Method:Westergren)	09	0.00 - 20.00 mm/hr	mm/hr
BLOOD GROUP ABO+RH [GEL METHOD] , *EDTA WHOLE BLOOD*			
ABO (Method:Gel Card)	A		
RH (Method:Gel Card)	POSITIVE		

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.

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Gender	**:** M	Report Date	**:** 18/Sep/2024 05:13PM

DEPARTMENT OF HAEMATOLOGY

Test Name	Result	Bio Ref. Interval	Unit

Historical records check not performed.

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

Kaushik Dey
Dr. KAUSHIK DEY
MD (PATHOLOGY)
CONSULTANT PATHOLOGIST
Reg No. WBMC 66405

Lab No.	**:** SRE/18-09-2024/SR9670457	**Lab Add.**	**:**
Patient Name	: ARVIND SINGH	**Ref Dr.**	: Dr.MEDICAL OFFICER
Age	**:** 33 Y 0 M 0 D	**Collection Date**	**:**
Gender	**:** M	Report Date	**:** 18/Sep/2024 04:58PM

DEPARTMENT OF X-RAY

DEPARTMENT OF RADIOLOGY
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 central. 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.

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

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

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Patient Name	: ARVIND SINGH	**Ref Dr.**	: Dr.MEDICAL OFFICER
Age	**:** 33 Y 0 M 0 D	**Collection Date**	**:**
Gender	**:** M	Report Date	**:** 18/Sep/2024 11:29AM

DEPARTMENT OF CARDIOLOGY

DEPARTMENT OF CARDIOLOGY

E.C.G. REPORT

Heart rate - 62 / min. (average)

Rhythm - Sinus

Axis - Normal

P- Wave - Normal

PR Interval - 0.16 Sec

QRS Complexes - Normal

ST Segment - Isoelectric

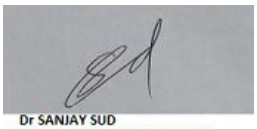
T Wave - Normal

QT Interval - 0.32 Sec

Voltage - Normal

IMPRESSION **: Normal Tracing. Please correlate clinically.**

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



Dr SANJAY SUD
MBBS (Cal), FCCP, MRI PHH(UK)
ECHO CARDIOLOGIST

Lab No.	**:** SRE/18-09-2024/SR9670457	**Lab Add.**	**:**
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DEPARTMENT OF ULTRASONOGRAPHY

DEPARTMENT OF ULTRASONOGRAPHY

REPORT ON EXAMINATION OF WHOLE ABDOMEN

LIVER

Liver is enlarged in size (15.31 cm), having grade I fatty changes. 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 (0.40 cm) with no intraluminal pathology (calculi /mass) could be detected at its visualised part. Portal vein is normal (1.00 cm) at porta.

GALLBLADDER

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

PANCREAS

Echogenecity 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 (08.97 cm). 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 11.00 cm. & Lt. kidney 10.34 cm) axes & position. Cortical echogenecity 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.

PROSTATE

Prostate is normal in size. Echotexture appears within normal limits. No focal alteration of its echogenecity could be detectable.

It measures : 3.05 cm. x 3.37 cm. x 3.36 cm.

Approximate weight could be around = 18.08 gms.

RETROPERITONEUM & PERITONEUM

No ascites noted. No definite evidence of any mass lesion detected. No detectable evidence of enlarged lymph nodes noted. Visualized part of aorta & IVC are within normal limit.

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DEPARTMENT OF ULTRASONOGRAPHY

IMPRESSION :

- **Hepatomegaly with grade I fatty changes.**

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. S. K. MONDAL
MBBS, CBET
(Sonologist)

Suraksha Diagnostic Limited
E-mail: info@surakshanet.com | Website: www.surakshanet.com

SURAKSHA DIAGNOSTIC,RAJARHAT,KOLKATA **PATIENT REPORT**

BIO-RAD VARIANT-II TURBO CDM5.4 SN-15893 **V2TURBO_A1c_2.0**

Patient Data

Sample ID:	E02132862187
Patient ID:	SR9670457
Name:	ARVIND SINGH
Physician:	
Sex:	M
DOB:	

Comments:

Analysis Data

Analysis Performed:	09/18/2024 14:52:06
Injection Number:	6272
Run Number:	93
Rack ID:	0008
Tube Number:	7
Report Generated:	09/18/2024 15:08:39
Operator ID:	PAYEL

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	0.9	0.165	18806
A1b	---	1.8	0.231	38494
LA1c	---	2.0	0.405	44616
A1c	6.6*	---	0.514	120496
P3	---	3.6	0.791	78658
P4	---	1.3	0.872	28034
Ao	---	84.9	0.990	1849736

*Values outside of expected ranges Total Area: 2,178,839

HbA1c (NGSP) = 6.6* % HbA1c (IFCC) = 49* mmol/mol