DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
ALKALINE PHOSPHATASE , *GEL SERUM* (Method:IFCC standardization)	100	46-116	U/L
GLUCOSE,FASTING (Method:Gluc Oxidase Trinder)	**100**	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.

POTASSIUM,BLOOD (Method:ISE INDIRECT)	3.80	3.5-5.5	mEq/L
CREATININE, BLOOD (Method:Jaffe, alkaline picrate, kinetic)	0.94	0.7-1.3	mg/dL
THYROID PANEL (T3, T4, TSH) , *GEL SERUM*			
T3-TOTAL (TRI IODOTHYRONINE) (Method:CLIA)	1.21	0.60-1.81 ng/ml	ng/ml
T4-TOTAL (THYROXINE) (Method:CLIA)	9.9	3.2-12.6	µg/dL
TSH (THYROID STIMULATING HORMONE) (Method:CLIA)	0.887	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.

Lab No. : BKP/24-02-2024/SR8784839
Patient Name : SNIGDHENDU PRAMANIK
Age : 34 Y 4 M 11 D
Gender : M

Lab Add. : Newtown,Kolkata-700156
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date : 24/Feb/2024 10:17AM
Report Date : 24/Feb/2024 03:19PM

DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
URIC ACID,BLOOD (Method:Uricase/Peroxidase)	5.90	3.5-7.2	mg/dL
BILIRUBIN (TOTAL) , *GEL SERUM*			
BILIRUBIN (TOTAL) (Method:Vanadate oxidation)	0.70	0.3-1.2	mg/dL
CALCIUM,BLOOD (Method:Arsenazo III)	9.10	8.7-10.4	mg/dL
BILIRUBIN (DIRECT) (Method:Vanadate oxidation)	0.20	<0.2	mg/dL
SGOT/AST (Method:Modified IFCC)	26	13-40	U/L
SODIUM,BLOOD (Method:ISE INDIRECT)	142	132 - 146	mEq/L
CHLORIDE,BLOOD (Method:ISE INDIRECT)	104	99-109	mEq/L
UREA,BLOOD (Method:Urease with GLDH)	21.4	19-49	mg/dL
PHOSPHORUS-INORGANIC,BLOOD (Method:Phosphomolybdate/UV)	2.5	2.4-5.1 mg/dL	mg/dL

*** End Of Report ***

Dr NEEPA CHOWDHURY
MBBS MD (Biochemistry)
Consultant Biochemist
Reg No. WBMC 62456

DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
URIC ACID, URINE, SPOT URINE			
URIC ACID, SPOT URINE (Method:URICASE)	76.00	37-92 mg/dL	mg/dL
GLUCOSE,PP (Method:Gluc Oxidase Trinder)	88*	Impaired Glucose Tolerance-140 to 199. Diabetes>= 200.	mg/dL

* NOTE: The lower value of Plasma Glucose (PP) compared to that of Plasma Glucose(F), may be interpreted having due to regard to the history of the case with particular reference to Diabetes, if any including the time and dose of antidiabetic drug administered, if any.

Blood glucose level is maintained by a very complex integrated mechanism involving critical interplay of release of hormones and action of enzymes on key metabolic pathways resulting in a smooth transition normally from a high

level of glucose influx following meal / glucose intake to a basal level after 2 – 3 hrs. or so. Excluding alimentary hypoglycemia, renal glycosuria, hereditary fructose intolerance and Galactosemia, the possible causes of post prandial reactive hypoglycemia (PRH) include high insulin sensitivity, exaggerated response of insulin and glucagon like peptide 1, defects in counter-regulation, very lean and /or anxious individuals, after massive weight reduction etc.

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.

*** End Of Report ***

Dr. SANCHAYAN SINHA
MBBS, MD, DNB (BIOCHEMISTRY)
CONSULTANT BIOCHEMIST
Reg No. WBMC 63214

Suraksha DIAGNOSTICS

Lab No.	: BKP/24-02-2024/SR8784839	**Lab Add.**	: Newtown,Kolkata-700156
Patient Name	: SNIGDHENDU PRAMANIK	**Ref Dr.**	: Dr.MEDICAL OFFICER
Age	: 34 Y 4 M 11 D	**Collection Date**	: 24/Feb/2024 10:17AM
Gender	: M	Report Date	: 24/Feb/2024 03:52PM

DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
GLYCATED HAEMOGLOBIN (HBA1C) , *EDTA WHOLE BLOOD*			
GLYCATED HEMOGLOBIN (HBA1C)	6.0	***FOR BIOLOGICAL REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED REMARKS/NOTE WITH ADDITIONAL CLINICAL INFORMATION ***	%
HbA1c (IFCC) (Method:HPLC)	42.0		mmol/mol

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$_{12}$/ 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

Test Name	Result	Bio Ref. Interval	Unit
LIPID PROFILE , *GEL SERUM*			
CHOLESTEROL-TOTAL (Method:Enzymatic)	239	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	mg/dL
TRIGLYCERIDES (Method:GPO-Trinder)	**170**	Normal:: < 150, BorderlineHigh::150-199, High:: 200-499, VeryHigh::>500	mg/dL
HDL CHOLESTEROL (Method:Elimination/catalase)	**36**	< 40 - Low 40-59- Optimum 60 - High	mg/dl
LDL CHOLESTEROL DIRECT (Method:Elimination / Catalase)	**186**	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)	17	< 40 mg/dl	mg/dl

DEPARTMENT OF BIOCHEMISTRY

Test Name	Result	Bio Ref. Interval	Unit
CHOL HDL Ratio (Method:Calculated)	6.6	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.*

Test Name	Result	Bio Ref. Interval	Unit
SGPT/ALT (Method:Modified IFCC)	**54**	7-40	U/L

TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .			
TOTAL PROTEIN (Method:BIURET METHOD)	7.60	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)	3.10	1.8-3.2	g/dl
AG Ratio (Method:Calculated)	1.45	1.0-2.5	

*** End Of Report ***

□

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

DEPARTMENT OF HAEMATOLOGY

Test Name	Result	Bio Ref. Interval	Unit

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

ABO (Method:Gel Card)	B	
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.

Historical records check not performed.

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

Test Name	Result	Bio Ref. Interval	Unit
HEMOGLOBIN (Method:PHOTOMETRIC)	14.7	13 - 17	g/dL
WBC (Method:DC detection method)	6.0	4 - 10	*10^3/µL
RBC (Method:DC detection method)	5.22	4.5 - 5.5	*10^6/µL
PLATELET (THROMBOCYTE) COUNT (Method:DC detection method/Microscopy)	166	150 - 450*10^3	*10^3/µL
DIFFERENTIAL COUNT			
NEUTROPHILS (Method:Flowcytometry/Microscopy)	59	40 - 80 %	%
LYMPHOCYTES (Method:Flowcytometry/Microscopy)	30	20 - 40 %	%
MONOCYTES (Method:Flowcytometry/Microscopy)	08	2 - 10 %	%
EOSINOPHILS (Method:Flowcytometry/Microscopy)	02	1 - 6 %	%
BASOPHILS (Method:Flowcytometry/Microscopy)	**01**	0-0.9%	%
CBC SUBGROUP			
HEMATOCRIT / PCV (Method:Calculated)	44.5	40 - 50 %	%
MCV (Method:Calculated)	85.1	83 - 101 fl	fl
MCH (Method:Calculated)	28.2	27 - 32 pg	pg
MCHC (Method:Calculated)	33.1	31.5-34.5 gm/dl	gm/dl
RDW - RED CELL DISTRIBUTION WIDTH (Method:Calculated)	**15.7**	11.6-14%	%
PDW-PLATELET DISTRIBUTION WIDTH (Method:Calculated)	23.2	8.3 - 25 fL	fL
MPV-MEAN PLATELET VOLUME (Method:Calculated)	12.4	7.5 - 11.5 fl	

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

1stHour (Method:Westergren)	20	0.00 - 20.00 mm/hr	mm/hr

DEPARTMENT OF HAEMATOLOGY

Test Name	Result	Bio Ref. Interval	Unit

*** End Of Report ***

Kaushik Dey

MD (PATHOLOGY)
CONSULTANT PATHOLOGIST
Reg No. WBMC 66405

DEPARTMENT OF RADIOLOGY
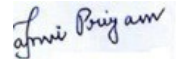
X-RAY REPORT OF CHEST (PA)

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.Tanvi Priyam
MBBS, MD Radio-Diagnosis
WB 81485

Lab No.	: BKP/24-02-2024/SR8784839	Lab Add.	: Newtown,Kolkata-700156
Patient Name	: SNIGDHENDU PRAMANIK	Ref Dr.	: Dr.MEDICAL OFFICER
Age	: 34 Y 4 M 11 D	Collection Date	: 24/Feb/2024 10:47AM
Gender	: M	Report Date	: 24/Feb/2024 03:19PM

DEPARTMENT OF CLINICAL PATHOLOGY

Test Name	Result	Bio Ref. Interval	Unit
URINE ROUTINE ALL, ALL , *URINE*			
PHYSICAL EXAMINATION			
COLOUR	PALE YELLOW		
APPEARANCE	SLIGHTLY HAZY		
CHEMICAL EXAMINATION			
pH (Method:Dipstick (triple indicator method))	7.0	4.6 - 8.0	
SPECIFIC GRAVITY (Method:Dipstick (ion concentration method))	1.010	1.005 - 1.030	
PROTEIN (Method:Dipstick (protein error of pH indicators)/Manual)	NOT DETECTED	NOT DETECTED	
GLUCOSE (Method:Dipstick(glucose-oxidase-peroxidase method)/Manual)	NOT DETECTED	NOT DETECTED	
KETONES (ACETOACETIC ACID, ACETONE) (Method:Dipstick (Legals test)/Manual)	NOT DETECTED	NOT DETECTED	
BLOOD (Method:Dipstick (pseudoperoxidase reaction))	NOT DETECTED	NOT DETECTED	
BILIRUBIN (Method:Dipstick (azo-diazo reaction)/Manual)	NEGATIVE	NEGATIVE	
UROBILINOGEN (Method:Dipstick (diazonium ion reaction)/Manual)	NEGATIVE	NEGATIVE	
NITRITE (Method:Dipstick (Griess test))	NEGATIVE	NEGATIVE	
LEUCOCYTE ESTERASE (Method:Dipstick (ester hydrolysis reaction))	NEGATIVE	NEGATIVE	
MICROSCOPIC EXAMINATION			
LEUKOCYTES (PUS CELLS) (Method:Microscopy)	1-2	0-5	/hpf
EPITHELIAL CELLS (Method:Microscopy)	0-1	0-5	/hpf
RED BLOOD CELLS (Method:Microscopy)	NOT DETECTED	0-2	/hpf
CAST (Method:Microscopy)	NOT DETECTED	NOT DETECTED	
CRYSTALS (Method:Microscopy)	NOT DETECTED	NOT DETECTED	
BACTERIA (Method:Microscopy)	NOT DETECTED	NOT DETECTED	
YEAST (Method:Microscopy)	NOT DETECTED	NOT DETECTED	

Note:

1. All urine samples are checked for adequacy and suitability before examination.

2. Analysis by urine analyzer of dipstick is based on reflectance photometry principle. Abnormal results of chemical examinations are confirmed by manual methods.

3. The first voided morning clean-catch midstream urine sample is the specimen of choice for chemical and microscopic analysis.

4. Negative nitrite test does not exclude urinary tract infections.

5. Trace proteinuria can be seen in many physiological conditions like exercise, pregnancy, prolonged recumbency etc.

6. 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.

7. 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.

8. Contamination from perineum and vaginal discharge should be avoided during collection, which may falsely elevate epithelial cell count and show presence of bacteria

DEPARTMENT OF CLINICAL PATHOLOGY

Test Name	Result	Bio Ref. Interval	Unit

and/or yeast in the urine.

*** End Of Report ***

Kaushik. Dey

MD (PATHOLOGY)
CONSULTANT PATHOLOGIST
Reg No. WBMC 66405

Lab No.	: BKP/24-02-2024/SR8784839	**Lab Add.**	:
Patient Name	: SNIGDHENDU PRAMANIK	**Ref Dr.**	: Dr.MEDICAL OFFICER
Age	: 34 Y 4 M 11 D	**Collection Date**	:
Gender	: M	Report Date	: 24/Feb/2024 01:42PM

DEPARTMENT OF CARDIOLOGY
REPORT OF E.C.G.

DATA		
HEART RATE		67 Bpm
PR INTERVAL		134 Ms
QRS DURATION		96 Ms
QT INTERVAL		378 Ms
QTC INTERVAL		402 Ms
AXIS		
P WAVE		33 Degree
QRS WAVE		26 Degree
T WAVE		12 Degree
IMPRESSION	:	**Resting ECG within normal limits.**

Dr. Siddhartha Kundu
MBBS, PG Diploma in Clinical Cardiology
Associate Consultant Cardiology, Critical Care

Patient Data

Sample ID:	D02135576526
Patient ID:	SR8784839
Name:	SNIGDHENDU PRAM
Physician:	
Sex:	M
DOB:	

Comments:

Analysis Data

Analysis Performed:	24/FEB/2024 15:41:38
Injection Number:	5326
Run Number:	68
Rack ID:	
Tube Number:	9
Report Generated:	24/FEB/2024 15:47:29
Operator ID:	TRISHA

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.0	0.161	23339
A1b	---	1.9	0.229	45102
LA1c	---	1.8	0.403	41660
A1c	6.0	---	0.507	118246
P3	---	3.6	0.785	83549
P4	---	1.3	0.865	31169
Ao	---	85.4	0.985	1998806

Total Area: 2,341,871

HbA1c (NGSP) = 6.0 %   HbA1c (IFCC) = 42 mmol/mol