



Lab No. : KNK/22-04-2023/SR7553987
 Patient Name : SUDHIN MAITRA
 Age : 32 Y 9 M 26 D
 Gender : M

Lab Add. : Newtown, Kolkata-700156
 Ref Dr. : Dr.MEDICAL OFFICER
 Collection Date: 23/Apr/2023 08:06AM
 Report Date : 24/Apr/2023 10:52AM



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

GLYCATED HAEMOGLOBIN (HBA1C) , EDTA WHOLE BLOOD

GLYCATED HEMOGLOBIN (HBA1C)	5.5	%	***FOR BIOLOGICAL REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED REMARKS/NOTE WITH ADDITIONAL CLINICAL INFORMATION ***	
HbA1c (IFCC)	36.0	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 glycemc targets

- Ø Patients should use self-monitoring of blood glucose (SMBG) and HbA1c levels to assess glycemc 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 glycemc control.
- Ø If a patient changes treatment plans or does not meet his or her glycemc 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 B₁₂/ 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

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*BILIRUBIN (TOTAL) , GEL SERUM					
BILIRUBIN (TOTAL)	0.91	mg/dL	0.3-1.2 mg/dL		DIAZOTIZED DCA
CREATININE, BLOOD , GEL SERUM					
	1.07	mg/dL	0.7-1.3 mg/dL		Jaffe, alkaline picrate, kinetic
*BILIRUBIN (DIRECT) , GEL SERUM					
BILIRUBIN (DIRECT)	0.23	mg/dL	<0.2 mg/dL		DIAZOTIZED DCA
*SGOT/AST , GEL SERUM					
SGOT/AST	58	U/L	13-40 U/L		IFCC Kinetic Method
*POTASSIUM, BLOOD , GEL SERUM					
POTASSIUM,BLOOD	4.70	mEq/L	3.5 - 5.5 mEq/L		ISE DIRECT
UREA,BLOOD					
	26.0	mg/dL	19 - 49 mg/dL		Urease with GLDH
*CBC WITH PLATELET (THROMBOCYTE) COUNT , EDTA WHOLE BLOOD					
HEMOGLOBIN	13.2	g/dL	13 - 17		PHOTOMETRIC
WBC	6.4	*10 ³ /μL	4 - 10		DC detection method
RBC	4.16	*10 ⁶ /μL	4.5 - 5.5		DC detection method
PLATELET (THROMBOCYTE) COUNT	120	*10 ³ /μL	150 - 450*10 ³ /μL		DC detection method/Microscopy
<u>DIFFERENTIAL COUNT</u>					
NEUTROPHILS	61	%	40 - 80 %		Flowcytometry/Microscopy
LYMPHOCYTES	32	%	20 - 40 %		Flowcytometry/Microscopy
MONOCYTES	05	%	2 - 10 %		Flowcytometry/Microscopy
EOSINOPHILS	02	%	1 - 6 %		Flowcytometry/Microscopy
BASOPHILS	00	%	0-0.9%		Flowcytometry/Microscopy
<u>CBC SUBGROUP</u>					
HEMATOCRIT / PCV	40.0	%	40 - 50 %		Calculated
MCV	96.1	fl	83 - 101 fl		Calculated
MCH	31.7	pg	27 - 32 pg		Calculated
MCHC	33.0	gm/dl	31.5-34.5 gm/dl		Calculated
RDW - RED CELL DISTRIBUTION WIDTH	16.4	%	11.6-14%		Calculated
PDW-PLATELET DISTRIBUTION WIDTH	21.9	fL	8.3 - 25 fL		Calculated
MPV-MEAN PLATELET VOLUME	10.5		7.5 - 11.5 fl		Calculated
PLATELET	THROMBOCYTOPENIA SEEN - CONFIRMED BY PERIPHERAL SMEAR EXAMINATION.				
*ESR (ERYTHROCYTE SEDIMENTATION RATE) , EDTA WHOLE BLOOD					
1stHour	06	mm/hr	0.00 - 20.00 mm/hr		Westergren
*TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .					
TOTAL PROTEIN	7.90	g/dL	5.7-8.2 g/dL		BIURET METHOD
ALBUMIN	4.5	g/dL	3.2-4.8 g/dL		BCG Dye Binding
GLOBULIN	3.40	g/dl	1.8-3.2 g/dl		Calculated
AG Ratio	1.32		1.0 - 2.5		Calculated

***URINE ROUTINE ALL, ALL , URINE**

PHYSICAL EXAMINATION

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COLOUR	PALE YELLOW			
APPEARANCE	SLIGHTLY HAZY			
<u>CHEMICAL EXAMINATION</u>				
pH	6	4.8 - 7.4	DIPSTICK	
SPECIFIC GRAVITY	1.025	1.016-1.022	DIPSTICK	
PROTEIN	NOT DETECTED	NOT DETECTED	DIPSTICK(Protein Error Principle)/MANUAL	
GLUCOSE	NOT DETECTED	NOT DETECTED	DIPSTICK (Glucose Oxidase - peroxidase)/ MANUAL	
KETONES (ACETOACETIC ACID, ACETONE)	NOT DETECTED	NOT DETECTED	Dipstick (Legals test)/Manual	
BLOOD	NEGATIVE	NOT DETECTED	DIPSTICK(Pseudo Peroxidase Method)	
BILIRUBIN	ABSENT	NEGATIVE	DIPSTICK(Azo-Diazo Reaction)/MANUAL	
UROBILINOGEN	NOT DETECTED	NORMAL	DIPSTICK(Diazonium Ion Reaction)/MANUAL	
NITRITE	NEGATIVE	NEGATIVE	DIPSTICK(GRIESS TEST)	
LEUCOCYTE ESTERASE	NEGATIVE	NEGATIVE	DIPSTICK	
<u>MICROSCOPIC EXAMINATION</u>				
LEUKOCYTES (PUS CELLS)	1 - 2	/hpf	0-5	Microscopy
EPITHELIAL CELLS	0 - 2	/hpf	0-5	Microscopy
RED BLOOD CELLS	NOT DETECTED	/hpf	0-2	Microscopy
CAST	NOT DETECTED		NOT DETECTED	Microscopy
CRYSTALS	CALCIUM OXALATE(++)		NOT DETECTED	Microscopy
BACTERIA	NOT DETECTED		NOT DETECTED	Microscopy
YEAST	NOT DETECTED		NOT DETECTED	Microscopy
OTHERS	NIL			

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	AB	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.

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

GLUCOSE,PP	134	mg/dL	Impaired Glucose Tolerance-140 mg/dL to 199 mg/dL. Diabetes >= 200 mg/dL.	Hexokinase Method
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***THYROID PANEL (T3, T4, TSH) , GEL SERUM**

T3-TOTAL (TRI IODOTHYRONINE)	1.23	ng/ml	0.60-1.81 ng/ml	CLIA
T4-TOTAL (THYROXINE)	8.8	µg/dL	3.2-12.6 µg/dL	CLIA
TSH (THYROID STIMULATING HORMONE)	4.24	µIU/mL	0.35-5.5 µIU/mL	CLIA

BIOLOGICAL REFERENCE INTERVAL : [ONLY FOR PREGNANT MOTHERS]

Trimester specific TSH LEVELS during pregnancy:

FIRST TRIMESTER : 0.10 2.50 µ IU/mL
 SECOND TRIMESTER : 0.20 3.00 µ IU/mL
 THIRD TRIMESTER : 0.30 3.00 µ IU/mL

References :

1. Indian Thyroid Society guidelines for management of thyroid dysfunction during pregnancy. *Clinical Practice Guidelines, New Delhi: Elsevier; 2012.*
2. Stagnaro-Green A, Abalovich M, Alexander E, Azizi F, Mestman J, Negro R, et al. Guidelines of the American Thyroid Association for the Diagnosis and Management of Thyroid Disease During Pregnancy and Postpartum. *Thyroid* 2011; 21: 1081-25.
3. Dave A, Maru L, Tripathi M. Importance of Universal screening for thyroid disorders in first trimester of pregnancy. *Indian J Endocr Metab [serial online] 2014 [cited 2014 Sep 25]; 18: 735-8. Available from: <http://www.ijem.in/text.asp?2014/18/5/735/139221>.*

***LIPID PROFILE , GEL SERUM**

CHOLESTEROL-TOTAL	197	mg/dL	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	CHOD – PAP
TRIGLYCERIDES	189	mg/dL	Normal: < 150, BorderlineHigh::150-199, High:: 200-499, VeryHigh::>500	ENZYMATIC (END POINT)
HDL CHOLESTEROL	46	mg/dl	< 40 - Low 40-59- Optimum 60 - High	ENZYMATIC (PEG)
LDL CHOLESTEROL DIRECT	113	mg/dL	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	HOMOGENOUS ENZYMATICAL
VLDL	38	mg/dl	< 40 mg/dl	Calculated
CHOL HDL Ratio	4.3		LOW RISK 3.3-4.4 AVERAGE RISK 4.47-7.1 MODERATE RISK 7.1-11.0 HIGH RISK >11.0	Calculated

***ALKALINE PHOSPHATASE , GEL SERUM**

ALKALINE PHOSPHATASE	54	U/L	46-116 U/L	PNPP- AMP
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***SGPT/ALT , GEL SERUM**

SGPT/ALT	136	U/L	7-40 U/L	IFCC KINETIC METHOD
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***CHLORIDE, BLOOD , .**

CHLORIDE,BLOOD	102	mEq/L	98 - 107 mEq/L	ISE DIRECT
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***CALCIUM, BLOOD**

CALCIUM,BLOOD	9.20	mg/dL	8.7-10.4 mg/dL	Modified OCPC
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***URIC ACID, BLOOD , GEL SERUM**

URIC ACID,BLOOD **7.60** mg/dL 3.5-7.2 mg/dL URICASE

***URIC ACID, URINE, SPOT URINE**

URIC ACID, SPOT URINE **101.10** mg/dL 37-92 mg/dL URICASE

GLUCOSE, FASTING , BLOOD, NAF PLASMA

GLUCOSE,FASTING **106** mg/dL Impaired Fasting-100-125 mg/dL. Hexokinase Method
Diabetes- \geq 126 mg/dL.
Fasting is defined as no caloric intake for at least 8 hours.

***SODIUM, BLOOD , GEL SERUM**

SODIUM,BLOOD 141 mEq/L 136 - 145 mEq/L ISE DIRECT

□



DR. SHABNAM PARVIN
MD (Pathology)
Consultant Pathologist



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PHOSPHORUS-INORGANIC, BLOOD , GEL SERUM

PHOSPHORUS-INORGANIC,BLOOD 3.3 mg/dL 2.4-5.1 mg/dL Phosphomolybdate/UV

□

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

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Patient Name : SUDHIN MAITRA
Age : 32 Y 9 M 26 D
Gender : M

Lab Add. :
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date:
Report Date : 22/Apr/2023 02:58PM



DEPARTMENT OF CARDIOLOGY
REPORT OF E.C.G.

DATA		
HEART RATE	69	Bpm
PR INTERVAL	146	Ms
QRS DURATION	84	Ms
QT INTERVAL	344	Ms
QTC INTERVAL	370	Ms
AXIS		
P WAVE	48	Degree
QRS WAVE	48	Degree
T WAVE	25	Degree
IMPRESSION	: Normal sinus rhythm, within normal limits.	

ACR

Dr. A C RAY
Department of Non-invasive
Cardiology

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Patient Name : SUDHIN MAITRA
Age : 32 Y 9 M 26 D
Gender : M

Lab Add. :
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date:
Report Date : 23/Apr/2023 02:56PM



X-RAY REPORT OF CHEST (PA) VIEW

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.

□

DR. VIMLESH JI VIMAL
MBBS (Cal)
MD, DMRD(IPGME & R)
Consultant Radiologist
Reg No 61436

Lab No. : KNK/22-04-2023/SR7553987
Patient Name : SUDHIN MAITRA
Age : 32 Y 9 M 26 D
Gender : M

Lab Add. :
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date:
Report Date : 23/Apr/2023 11:08AM



ULTRASONOGRAPHY OF WHOLE ABDOMEN

LIVER: Enlarged in size (16.35 cm) and parenchymal echotexture moderately raised. No focal lesion of altered echogenicity is seen. Intrahepatic biliary radicles are not dilated. The portal vein branches and hepatic veins are normal.

GALL BLADDER: Well distended; wall thickness is normal. Gall Bladder lumen shows no intraluminal calculus or mass. No pericholecystic collection or mass formation is noted.

PORTA HEPATIS: The portal vein is normal in caliber with clear lumen. The common bile duct is normal in caliber. Visualized lumen is clear.

PANCREAS: It is normal in shape, size and echopattern. Main pancreatic duct is not dilated. No focal lesion of altered echogenicity is seen. The peripancreatic region shows no abnormal fluid collection.

SPLEEN: It is normal in shape, size (10.88 cm) and shows homogeneous echopattern. No focal lesion is seen. No abnormal venous dilatation is seen in the splenic hilum.

KIDNEYS: Both Kidneys are normal in shape, size and position. Cortical echogenicity and thickness are normal with normal cortico-medullary differentiation in both kidneys. **One soft calculus (0.35 cm) without any acoustic shadow noted at middle calyx of right kidney.** No hydronephrosis or mass is noted. The perinephric region shows no abnormal fluid collection.

URETER: Both ureters are not dilated. No calculus is noted in either side.

URINARY BLADDER: It is adequately distended providing optimum scanning window. The lumen is clear and wall thickness is normal.

PROSTATE: It is borderline enlarged in size and normal echopattern. No focal lesion is seen. Capsule is smooth.

Prostate volume: 27.23 cc.

IMPRESSION:

- **Hepatomegaly with grade "II" fatty changes.**
- **Right renal soft calculus.**
- **Borderline prostatomegaly.**

Kindly note

Ø Ultrasound is not the modality of choice to rule out subtle bowel lesion.

Ø Please Intimate us for any typing mistakes and send the report for correction within 7 days.

Ø 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.

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Report Date : 23/Apr/2023 11:08AM



DR. VIMLESH JI VIMAL
MBBS (Cal)
MD, DMRD(IPGME & R)
Consultant Radiologist
Reg No 61436

Patient Data

Sample ID: D02135111694
 Patient ID: SR7553987
 Name:
 Physician:
 Sex:
 DOB:

Analysis Data

Analysis Performed: 23/APR/2023 16:20:05
 Injection Number: 2239U
 Run Number: 50
 Rack ID: 0002
 Tube Number: 7
 Report Generated: 23/APR/2023 16:27:22
 Operator ID: ANAMIKA

Comments:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.1	0.161	26629
A1b	---	1.0	0.220	24767
F	---	1.3	0.274	30000
LA1c	---	1.8	0.398	43569
A1c	5.5	---	0.502	105176
P3	---	3.4	0.787	80551
P4	---	1.2	0.864	27706
Ao	---	85.8	0.982	2045624

Total Area: 2,384,022

HbA1c (NGSP) = 5.5 % HbA1c (IFCC) = 36 mmol/mol

