



Lab No. : ASN/25-03-2023/SR7450042
Patient Name : VIVEK BENEDICT SINGH
Age : 31 Y 10 M 25 D
Gender : M

Lab Add. : Newtown, Kolkata-700156
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date: 25/Mar/2023 09:56AM
Report Date : 25/Mar/2023 07:13PM



Test Name	Result	Unit	Bio Ref. Interval	Method
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BLOOD GROUP ABO+RH [GEL METHOD] , EDTA WHOLE BLOOD

ABO	B			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.

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

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*ALKALINE PHOSPHATASE , GEL SERUM					
ALKALINE PHOSPHATASE	95	U/L	53-128 U/L		AMP
*BILIRUBIN (TOTAL) , GEL SERUM					
BILIRUBIN (TOTAL)	0.70	mg/dL	< 1.2 mg/dl		Diazotized DCA Method
*SGPT/ALT , GEL SERUM					
SGPT/ALT	68	U/L	< 41 U/L		IFCC Kinetic Method
*CHLORIDE, BLOOD , .					
CHLORIDE,BLOOD	104	mEq/L	98 - 107 mEq/L		ISE DIRECT
CREATININE, BLOOD , GEL SERUM					
CREATININE, BLOOD	0.78	mg/dL	0.70 - 1.3 mg/dl		ENZYMATIC
*GLUCOSE, FASTING , BLOOD, NAF PLASMA					
GLUCOSE,FASTING	94	mg/dL	(70 - 110 mg/dl)		GOD POD
*CALCIUM, BLOOD					
CALCIUM,BLOOD	9.00	mg/dL	8.6 - 10.2 mg/dl		ARSENazo III
*TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .					
TOTAL PROTEIN	7.60	g/dL	6.6 - 8.7 g/dL		BIURET METHOD
ALBUMIN	4.5	g/dl	3.5-5.2 g/dl		BCG
GLOBULIN	3.10	g/dl	1.8-3.2 g/dl		Calculated
AG Ratio	1.45		1.0 - 2.5		Calculated
*GLUCOSE, PP , BLOOD, NAF PLASMA					
GLUCOSE,PP	118		(70 - 140 mg/dl)		GOD POD
*SODIUM, BLOOD , GEL SERUM					
SODIUM,BLOOD	143	mEq/L	136 - 145 mEq/L		ISE DIRECT

[PDF Attached](#)

*GLYCATED HEMOGLOBIN (HBA1C) , EDTA WHOLE BLOOD					
GLYCATED HEMOGLOBIN (HBA1C)	5.0	%			***FOR BIOLOGICAL REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED REMARKS/NOTE WITH ADDITIONAL CLINICAL INFORMATION ***
HbA1c (IFCC)	31.0	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 : BIORAD D-10
Method : HPLC

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

Lab No. : ASN/25-03-2023/SR7450042

Page 2 of 8

Lab No. : SR7450042 Name : VIVEK BENEDICT SINGH Age/G : 31 Y 10 M 25 D / M Date : 25-03-2023

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 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.

***SGOT/AST , GEL SERUM**

SGOT/AST	48	U/L	< 40 U/L	IFCC Kinetic Method
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***ESR (ERYTHROCYTE SEDIMENTATION RATE) , EDTA WHOLE BLOOD**

1stHour	20	mm/hr	0.00 - 20.00 mm/hr	Westergren
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***BILIRUBIN (DIRECT) , GEL SERUM**

BILIRUBIN (DIRECT)	0.30	mg/dL	< 0.3 mg/dl	Diazotized DCA Method
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***CBC WITH PLATELET (THROMBOCYTE) COUNT , EDTA WHOLE BLOOD**

HEMOGLOBIN	14.4	g/dL	13 - 17	PHOTOMETRIC
WBC	4.9	*10 ³ /μL	4 - 10	DC detection method
RBC	4.92	*10 ⁶ /μL	4.5 - 5.5	DC detection method
PLATELET (THROMBOCYTE) COUNT	125	*10 ³ /μL	150 - 450*10 ³ /μL	DC detection method/Microscopy

DIFFERENTIAL COUNT

NEUTROPHILS	45	%	40 - 80 %	Flowcytometry/Microscopy
LYMPHOCYTES	46	%	20 - 40 %	Flowcytometry/Microscopy
MONOCYTES	05	%	2 - 10 %	Flowcytometry/Microscopy
EOSINOPHILS	04	%	1 - 6 %	Flowcytometry/Microscopy
BASOPHILS	00	%	0-0.9%	Flowcytometry/Microscopy

CBC SUBGROUP

HEMATOCRIT / PCV	42.6	%	40 - 50 %	Calculated
MCV	86.6	fl	83 - 101 fl	Calculated
MCH	29.2	pg	27 - 32 pg	Calculated
MCHC	33.7	gm/dl	31.5-34.5 gm/dl	Calculated
RDW - RED CELL DISTRIBUTION WIDTH	13.5	%	11.6-14%	Calculated
PDW-PLATELET DISTRIBUTION WIDTH	30.6	fL	8.3 - 25 fL	Calculated
MPV-MEAN PLATELET VOLUME	13.7		7.5 - 11.5 fl	Calculated

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

PHYSICAL EXAMINATION

COLOUR	PALE YELLOW
APPEARANCE	CLEAR

CHEMICAL EXAMINATION

Lab No. : ASN/25-03-2023/SR7450042

Page 3 of 8

Lab No. : SR7450042	Name : VIVEK BENEDICT SINGH	Age/G : 31 Y 10 M 25 D / M	Date : 25-03-2023	
pH	7.0	4.6 - 8.0	Dipstick (triple indicator method)	
SPECIFIC GRAVITY	1.010	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	NEGATIVE	NEGATIVE	Dipstick (ester hydrolysis reaction)	
<u>MICROSCOPIC EXAMINATION</u>				
LEUKOCYTES (PUS CELLS)	1-2	/hpf	0-5	Microscopy
EPITHELIAL CELLS	0-1	/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	NOT DETECTED		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.

UREA,BLOOD	12.3	mg/dl	12.8-42.8 mg/dl	UREASE-GLDH
*URIC ACID, BLOOD , GEL SERUM				
URIC ACID,BLOOD	6.90	mg/dl	3.4 - 7.0 mg/dl	URICASE
*POTASSIUM, BLOOD , GEL SERUM				
POTASSIUM,BLOOD	4.10	mEq/L	3.1-5.5 mEq/L	ISE DIRECT
*THYROID PANEL (T3, T4, TSH) , GEL SERUM				
T3-TOTAL (TRI IODOTHYRONINE)	1.30	ng/ml	0.9 - 2.2 ng/ml	CLIA
T4-TOTAL (THYROXINE)	10.3	5.5-16 microgram/dl	5.5-16 microgram/dl	CLIA
TSH (THYROID STIMULATING HORMONE)	1.90	μIU/mL	0.5-4.7 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

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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>.

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Dr Sayak Biswas
MBBS, MD
Consultant Pathologist

Lab No. : SR7450042 Name : VIVEK BENEDICT SINGH Age/G : 31 Y 10 M 25 D / M Date : 27-03-2023

PHOSPHORUS-INORGANIC, BLOOD , GEL SERUM

PHOSPHORUS-INORGANIC,BLOOD	2.7	mg/dL	2.4-5.1 mg/dL	Phosphomolybdate/UV
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LIPID PROFILE , GEL SERUM

CHOLESTEROL-TOTAL	177	mg/dL	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	Enzymatic
TRIGLYCERIDES	115	mg/dL	Normal:: < 150, BorderlineHigh::150-199, High:: 200-499, VeryHigh:: >500	GPO-Trinder
HDL CHOLESTEROL	32	mg/dl	< 40 - Low 40-59- Optimum 60 - High	Elimination/catalase
LDL CHOLESTEROL DIRECT	135	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	Elimination / Catalase
VLDL	10	mg/dl	< 40 mg/dl	Calculated
CHOL HDL Ratio	5.5		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.

URIC ACID, URINE, SPOT URINE

URIC ACID, SPOT URINE	20.50	mg/dL	37-92 mg/dL	URICASE
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DR. ANANNYA GHOSH
MBBS, MD (Biochemistry)
Consultant Biochemist

Lab No. : ASN/25-03-2023/SR7450042
Patient Name : VIVEK BENEDICT SINGH
Age : 31 Y 10 M 25 D
Gender : M

Lab Add. : ASANSOL
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date:
Report Date : 25/Mar/2023 01:06PM



DEPARTMENT OF CARDIOLOGY
REPORT OF E.C.G.

DATA

HEART RATE	:	87 bpm
PR INTERVAL	:	134 ms
QRS DURATION	:	81 ms
QT INTERVAL	:	352 ms
QTC INTERVAL	:	423 ms

AXIS

P WAVE	:	64 degree
QRS WAVE	:	39 degree
T WAVE	:	46 degree

IMPRESSION : Normal sinus rhythm, within normal limit.

□

ACRay

Dr. A C RAY
Department of Non-invasive
Cardiology

Lab No. : ASN/25-03-2023/SR7450042
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Age : 31 Y 10 M 25 D
Gender : M

Lab Add. : ASANSOL
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date:
Report Date : 25/Mar/2023 05:01PM



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.

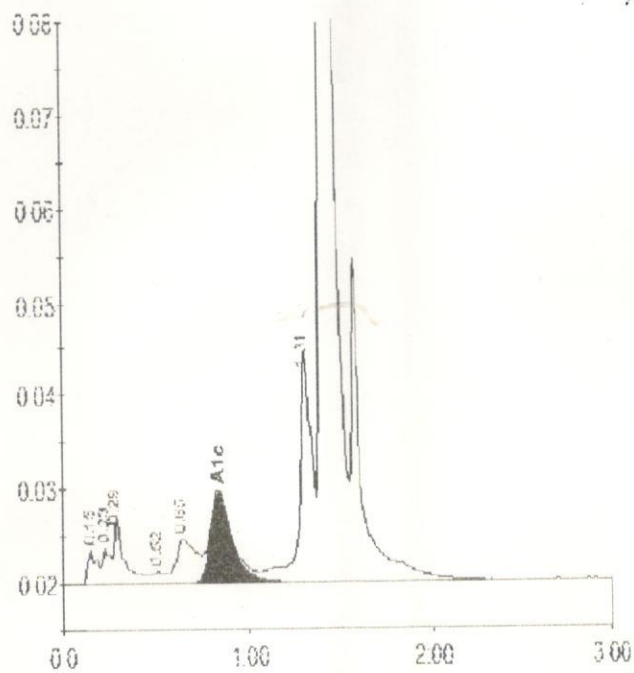
IMPRESSION :

Normal study.

DR. SUBRATA SANYAL
MBBS (CAL), DMRD (CAL).
CONSULTANT SONOLOGIST AND RADIOLOGIST.

Patient report

Bio-Rad DATE: 25/03/2023
 D-10 TIME: 03:38 PM
 S/N: #DJ4D012104 Software version: 4.30-2
 Sample ID: C02135103419
 Injection date 25/03/2023 03:37 PM
 Injection #: 7 Method: HbA1c
 Rack #: --- Rack position: 7



Peak table - ID: C02135103419

Peak	R.time	Height	Area	Area%
A1a	0.15	3557	12394	0.6
Unknown	0.23	3718	11985	0.6
A1b	0.29	7094	26363	1.2
F	0.52	1222	5893	0.3
LA1c/CHb-1	0.65	4637	36423	1.7
A1c	0.84	9594	76990	5.0
P3	1.31	24445	114397	5.4
A0	1.41	678956	1836955	86.6
Total Area:			2121400	

Concentration:	%	mmol/mol
A1c	5.0	31