



Lab No. : DUN/25-03-2023/SR7450928
 Patient Name : APARNA DAS
 Age : 58 Y 4 M 8 D
 Gender : F

Lab Add. : Newtown, Kolkata-700156
 Ref Dr. : Dr.MEDICAL OFFICER
 Collection Date: 25/Mar/2023 11:11AM
 Report Date : 25/Mar/2023 03:07PM



Test Name	Result	Unit	Bio Ref. Interval	Method
GLUCOSE, FASTING , BLOOD, NAF PLASMA				
GLUCOSE,FASTING	88	mg/dL	Impaired Fasting-100-125 .-Diabetes- >= 126.-Fasting is defined as no caloric intake for at least 8 hours.	Gluc Oxidase Trinder

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.

Dr NEEPA CHOWDHURY
 MBBS MD (Biochemistry)
 Consultant Biochemist



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***CHLORIDE, BLOOD , .**

CHLORIDE,BLOOD 105 mEq/L 99-109 mEq/L ISE INDIRECT

SODIUM, BLOOD , GEL SERUM

SODIUM,BLOOD 140 mEq/L 132 - 146 mEq/L ISE INDIRECT

PHOSPHORUS-INORGANIC, BLOOD , GEL SERUM

PHOSPHORUS-INORGANIC,BLOOD 3.4 mg/dL 2.4-5.1 mg/dL Phosphomolybdate/UV

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

T3-TOTAL (TRI IODOTHYRONINE) 0.81 ng/ml 0.60-1.81 ng/ml CLIA

T4-TOTAL (THYROXINE) 8.6 µg/dL 3.2-12.6 µg/dL CLIA

TSH (THYROID STIMULATING HORMONE) 1.13 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:

- 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.
- 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.

LIPID PROFILE , GEL SERUM

CHOLESTEROL-TOTAL 135 mg/dL Desirable: < 200 mg/dL Enzymatic
Borderline high: 200-239 mg/dL

TRIGLYCERIDES 151 mg/dL High: > or =240 mg/dL GPO-Trinder
Normal:: < 150,
BorderlineHigh::150-199,

HDL CHOLESTEROL 46 mg/dl High:: 200-499,
VeryHigh:: >500
< 40 - Low Elimination/catalase
40-59- Optimum
60 - High



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LDL CHOLESTEROL DIRECT	68	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	21	mg/dl	< 40 mg/dl Calculated
CHOL HDL Ratio	2.9		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.

GLUCOSE, PP , BLOOD, NAF PLASMA

GLUCOSE,PP	217	mg/dL	Impaired Glucose Tolerance-140 to 199. Diabetes>= 200. Gluc Oxidase Trinder
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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.

POTASSIUM, BLOOD , GEL SERUM

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

UREA,BLOOD	17.1	mg/dL	19-49 mg/dL Urease with GLDH
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CREATININE, BLOOD

CREATININE, BLOOD	0.81	mg/dL	0.5-1.1 mg/dL Jaffe, alkaline picrate, kinetic
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CALCIUM, BLOOD

CALCIUM,BLOOD	9.60	mg/dL	8.7-10.4 mg/dL Arsenazo III
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URIC ACID, BLOOD , GEL SERUM

URIC ACID,BLOOD	7.20	mg/dL	2.6-6.0 mg/dL Uricase/Peroxidase
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TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .

TOTAL PROTEIN	7.40	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	3.10	g/dl	1.8-3.2 g/dl Calculated
AG Ratio	1.39		1.0 - 2.5 Calculated

[PDF Attached](#)

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 *** HPLC
HbA1c (IFCC)	49.0	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)

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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. SUPARBA CHAKRABARTI
MBBS, MD(BIOCHEMISTRY)
Consultant Biochemist



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URINE ROUTINE ALL, ALL , URINE

PHYSICAL EXAMINATION

COLOUR PALE YELLOW
 APPEARANCE SLIGHTLY HAZY

CHEMICAL EXAMINATION

pH	5.0	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)

MICROSCOPIC EXAMINATION

LEUKOCYTES (PUS CELLS)	0-1	/hpf	0-5	Microscopy
EPITHELIAL CELLS	2-3	/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.

ESR (ERYTHROCYTE SEDIMENTATION RATE) , EDTA WHOLE BLOOD

1stHour **39** mm/hr 0.00 - 20.00 mm/hr Westergren

CBC WITH PLATELET (THROMBOCYTE) COUNT , EDTA WHOLE BLOOD

HEMOGLOBIN	10.4	g/dL	12 - 15	PHOTOMETRIC
WBC	8.5	*10 ³ /μL	4 - 10	DC detection method
RBC	3.97	*10 ⁶ /μL	3.8 - 4.8	DC detection method
PLATELET (THROMBOCYTE) COUNT	177	*10 ³ /μL	150 - 450*10 ³ /μL	DC detection method/Microscopy

DIFFERENTIAL COUNT

NEUTROPHILS	68	%	40 - 80 %	Flowcytometry/Microscopy
LYMPHOCYTES	24	%	20 - 40 %	Flowcytometry/Microscopy
MONOCYTES	04	%	2 - 10 %	Flowcytometry/Microscopy
EOSINOPHILS	04	%	1 - 6 %	Flowcytometry/Microscopy

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BASOPHILS 00 % 0-0.9% Flowcytometry/Microscopy

CBC SUBGROUP

HEMATOCRIT / PCV	33.1	%	36 - 46 %	Calculated
MCV	83.3	fl	83 - 101 fl	Calculated
MCH	26.3	pg	27 - 32 pg	Calculated
MCHC	31.5	gm/dl	31.5-34.5 gm/dl	Calculated
RDW - RED CELL DISTRIBUTION WIDTH	16.1	%	11.6-14%	Calculated
PDW-PLATELET DISTRIBUTION WIDTH	31.3	fL	8.3 - 25 fL	Calculated
MPV-MEAN PLATELET VOLUME	13.3		7.5 - 11.5 fl	Calculated

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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Lab Add. :
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Collection Date:
Report Date : 25/Mar/2023 07:15PM




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. J. Bardhan
Consultant Radiologist
MD, Radiodiagnosis

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Lab Add. :
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Collection Date:
Report Date : 25/Mar/2023 07:32PM



DEPARTMENT OF ULTRASONOGRAPHY

REPORT ON EXAMINATION OF WHOLE ABDOMEN

LIVER: It is enlarged in size (17.98 cm) with grade II fatty changes. 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 lumen shows no intra-luminal calculus or mass. Wall thickness is normal. No pericholecystic collection or mass formation is noted.

PORTA HEPATIS: The portal vein (0.95 cm) is normal in caliber with clear lumen. The common bile duct is normal in caliber. Visualized lumen is clear till visualised extent. Common bile duct measures approx 0.40 cm in diameter. *Extreme lower end of common bile duct is not visualised due to bowel gas shadow.*

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 (9.91 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. No calculus, hydronephrosis or mass is noted. The perinephric region shows no abnormal fluid collection.

RIGHT KIDNEY measures 9.91 cm **LEFT KIDNEY** measures 8.93 cm

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

PERITONEUM & RETROPERITONEUM: The aorta and IVC are normal. Lymph nodes are not enlarged. No free fluid is seen in peritoneum.

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

UTERUS: It is post menopausal atrophic in status.

ADNEXA: No adnexal SOL is noted.

OVARIES : Not visualised.

IMPRESSION:

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Hepatomegaly with grade II fatty changes in liver.

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. J. Bardhan
Consultant Radiologist
MD, Radiodiagnosis

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Patient Name : APARNA DAS
Age : 58 Y 4 M 8 D
Gender : F

Lab Add. :
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date:
Report Date : 25/Mar/2023 07:13PM



DEPARTMENT OF CARDIOLOGY
REPORT OF E.C.G.

DATA	
HEART RATE	69 Bpm
PR INTERVAL	144 Ms
QRS DURATION	80 Ms
QT INTERVAL	402 Ms
QTC INTERVAL	432 Ms
AXIS	
P WAVE	22 Degree
QRS WAVE	24 Degree
T WAVE	24 Degree
IMPRESSION	: Normal sinus rhythm, within normal limits.

DR. MOUSUMI KUNDU
MBBS, MD
DM (Cardiology)

Patient Data

Sample ID: C02135983948
 Patient ID: SR7450928
 Name:
 Physician:
 Sex:
 DOB:

Analysis Data

Analysis Performed: 25/MAR/2023 15:37:52
 Injection Number: 10531U
 Run Number: 237
 Rack ID:
 Tube Number: 5
 Report Generated: 25/MAR/2023 15:49:35
 Operator ID: ASIT

Comments:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.0	0.155	22450
A1b	---	2.1	0.215	48883
LA1c	---	1.8	0.394	43188
A1c	6.6*	---	0.498	132105
P3	---	3.8	0.788	90142
P4	---	1.2	0.866	29107
Ao	---	84.4	0.986	1986845

*Values outside of expected ranges

Total Area: 2,352,721

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

