TEST NAME	TECHNOLOGY	VALUE	UNITS
HbA1c - (HPLC - NGSP Certified)			
	H.P.L.C	5	%

Reference Range :

Reference Range: As per ADA Guidelines	Guidance For Known Diabetics
Below 5.7% : Normal 5.7% - 6.4% : Prediabetic >=6.5% : Diabetic	Below 6.5% : Good Control 6.5% - 7% : Fair Control 7.0% - 8% : Unsatisfactory Control >8% : Poor Control

Method : Fully Automated H.P.L.C. using Biorad Variant II Turbo, NGSP Certified.

AVERAGE BLOOD GLUCOSE (ABG)	CALCULATED	97	mg/dl

Reference Range :

90 - 120 mg/dl : Good Control 121 - 150 mg/dl : Fair Control 151 - 180 mg/dl : Unsatisfactory Control > 180 mg/dl : Poor Control

Method : Derived from HBA1c values

Please correlate with clinical conditions.

TEST NAME	VALUE	UNITS	REFERENCE RANGE
TOTAL LEUCOCYTES COUNT	6.55	X 10^3 / µL	4.0-10.0
NEUTROPHILS	57.7	%	40-80
LYMPHOCYTE PERCENTAGE	34.4	%	20-40
MONOCYTES	3.1	%	0-10
EOSINOPHILS	4.4	%	0.0-6.0
BASOPHILS	0.2	%	<2
IMMATURE GRANULOCYTE PERCENTAGE(IG%)	0.2	%	0-0.5
NEUTROPHILS - ABSOLUTE COUNT	3.78	X 10^3 / µL	2.0-7.0
LYMPHOCYTES - ABSOLUTE COUNT	2.25	X 10^3 / µL	1.0-3.0
MONOCYTES - ABSOLUTE COUNT	0.2	X 10^3 / µL	0.2-1
BASOPHILS - ABSOLUTE COUNT	0.01	X 10^3 / µL	0-0.1
EOSINOPHILS - ABSOLUTE COUNT	0.29	X 10^3 / µL	0-0.5
IMMATURE GRANULOCYTES(IG)	0.01	X 10^3 / µL	0-0.3
TOTAL RBC	**6.4**	**X 10^6/µL**	**4.5-5.5**
NUCLEATED RED BLOOD CELLS	Nil	X 10^3 / µL	<0.01
NUCLEATED RED BLOOD CELLS %	Nil	%	<0.01
HEMOGLOBIN	16.1	g/dL	13-17
HEMATOCRIT(PCV)	45.08	%	40-50
MEAN CORPUSCULAR VOLUME(MCV)	**79.4**	**fL**	**83-101**
MEAN CORPUSCULAR HEMOGLOBIN(MCH)	**25.2**	**pq**	**27-32**
MEAN CORP.HEMO.CONC(MCHC)	31.7	g/dL	31.5-34.5
RED CELL DISTRIBUTION WIDTH - SD(RDW-SD)	**48.6**	**fL**	**39-46**
RED CELL DISTRIBUTION WIDTH (RDW-CV)	**18.4**	**%**	**11.6-14**
PLATELET DISTRIBUTION WIDTH(PDW)	**15.9**	**fL**	**9.6-15.2**
MEAN PLATELET VOLUME(MPV)	11.6	fL	6.5-12
PLATELET COUNT	230	X 10^3 / µL	150-400
PLATELET TO LARGE CELL RATIO(PLCR)	37.8	%	19.7-42.4
PLATELETCRIT(PCT)	0.27	%	0.19-0.39

Remarks : ALERT !!! Anisocytosis

Please Correlate with clinical conditions.
Method : Fully automated bidirectional analyser (6 Part Differential SYSMEX XN-1000)
(This device performs hematology analyses according to the Hydrodynamic Focussing (DC method), Flow Cytometry Method (using a semiconductor laser), and SLS- hemoglobin method)

TEST NAME	TECHNOLOGY	VALUE	UNITS
25-OH VITAMIN D (TOTAL)	**C.L.I.A**	**23.81**	**ng/ml**

Reference Range :
DEFICIENCY : <20 ng/ml
INSUFFICIENCY : 20-<30 ng/ml
SUFFICIENCY : 30-100 ng/ml
TOXICITY : >100 ng/ml

Vitamin D Total test is analyzed on Siemens ADVIA Centaur, standardized against ID-LC/MS/MS, as per Vitamin D Standardization Program (VDSP).
Method : FULLY AUTOMATED CHEMI LUMINESCENT IMMUNO ASSAY

VITAMIN B-12	C.L.I.A	231	pg/ml

Reference Range :
Normal : 211 - 911 pg/ml

Clinical significance :
Vitamin B12 or cyanocobalamin, is a complex corrinoid compound found exclusively from animal dietary sources, such as meat, eggs and milk. It is critical in normal DNA synthesis, which in turn affects erythrocyte maturation and in the formation of myelin sheath. Vitamin-B12 is used to find out neurological abnormalities and impaired DNA synthesis associated with macrocytic anemias. For diagnostic purpose, results should always be assessed in conjunction with the patients medical history, clinical examination and other findings.

Specifications: Intra assay (%CV):4.0%, Inter assay (%CV):4.4 %;Sensitivity:45 pg/ml

External quality control program participation:
College of American pathologists: ligand assay (general) survey; CAP number: 7193855-01

Kit validation references:
Chen IW,Sperling MI,Heminger IA.Vitamin B12.In:Pesce AJ,Kalpan LA,editors.Methods in clinical chemistry. St.Louis:CV Mosby,1987.P.569-73.
Method : FULLY AUTOMATED BIDIRECTIONALLY INTERFACED CHEMI LUMINESCENT IMMUNO ASSAY

Please correlate with clinical conditions.

TEST NAME	TECHNOLOGY	VALUE	UNITS
TESTOSTERONE	C.L.I.A	176.81	ng/dL

Reference Range :-

Adult Male
21 - 49 Yrs : 164.94 - 753.38
50 - 89 Yrs : 86.49 - 788.22
Adult Female
Pre-Menopause : 12.09 - 59.46
Post-Menopause: < 7.00 - 48.93
Boys
2-10 Years : < 7.00 - 25.91
11 Years : < 7.00 - 341.53
12 Years : < 7.00 - 562.59
13 Years : 9.34 - 562.93
14 Years : 23.28 - 742.46
15 Years : 144.15 - 841.44
16-21 Years : 118.22 - 948.56
Girls
2-10 Years : < 7.00 - 108.30
11-15 Years : < 7.00 - 48.40
16-21 Years : 17.55 - 50.41

Clinical Significance:
Clinical evaluation of serum testosterone, along with serum LH, assists in evaluation of Hypogonadal males. Major causes of lowered testosterone in males include Hypogonadotropic hypogonadism, testicular failure Hyperprolactinema, Hypopituitarism some types of liver and kidney diseases and critical illness.

Specifications: Precision: Intra assay (%CV): 8.5 %, Inter assay (%CV): 12.6%; Sensitivity: 7 ng/dL.

External quality control program participation:
College of American pathologists: Ligand assay (special) survey; cap number: 7193855-01

Please correlate with clinical conditions.

Method:- FULLY AUTOMATED BIDIRECTIONALLY INTERFACED CHEMI LUMINESCENT IMMUNO ASSAY

TEST NAME	TECHNOLOGY	VALUE	UNITS
IRON **Reference Range :** Male : 65 - 175 Female : 50 - 170 **Method :** FERROZINE METHOD WITHOUT DEPROTEINIZATION	PHOTOMETRY	98.3	µg/dl
TOTAL IRON BINDING CAPACITY (TIBC) **Reference Range :** Male: 225 - 535 µg/dl Female: 215 - 535 µg/dl **Method :** SPECTROPHOTOMETRIC ASSAY	PHOTOMETRY	360	µg/dl
% TRANSFERRIN SATURATION **Reference Range :** 13 - 45 **Method :** DERIVED FROM IRON AND TIBC VALUES	CALCULATED	27.31	%

Please correlate with clinical conditions.

TEST NAME	TECHNOLOGY	VALUE	UNITS	NORMAL RANGE
ALKALINE PHOSPHATASE	PHOTOMETRY	76.1	U/L	45 - 129
BILIRUBIN - TOTAL	PHOTOMETRY	0.86	mg/dl	0.3-1.2
BILIRUBIN -DIRECT	PHOTOMETRY	0.18	mg/dl	< 0.3
BILIRUBIN (INDIRECT)	CALCULATED	0.68	mg/dl	0-0.9
GAMMA GLUTAMYL TRANSFERASE (GGT)	PHOTOMETRY	12.14	U/l	< 55
ASPARTATE AMINOTRANSFERASE (SGOT)	PHOTOMETRY	22.7	U/l	< 35
ALANINE TRANSAMINASE (SGPT)	PHOTOMETRY	22.5	U/l	< 45
PROTEIN - TOTAL	PHOTOMETRY	6.4	gm/dl	5.7-8.2
ALBUMIN - SERUM	PHOTOMETRY	3.78	gm/dl	3.2-4.8
SERUM ALB/GLOBULIN RATIO	CALCULATED	1.44	Ratio	0.9 - 2
SERUM GLOBULIN	PHOTOMETRY	2.62	gm/dL	2.5-3.4

Please correlate with clinical conditions.

Method :

ALKP - MODIFIED IFCC METHOD
BILT - VANADATE OXIDATION
BILD - VANADATE OXIDATION
BILI - DERIVED FROM SERUM TOTAL AND DIRECT BILIRUBIN VALUES
GGT - MODIFIED IFCC METHOD
SGOT - IFCC* WITHOUT PYRIDOXAL PHOSPHATE ACTIVATION
SGPT - IFCC* WITHOUT PYRIDOXAL PHOSPHATE ACTIVATION
PROT - BIURET METHOD
SALB - ALBUMIN BCG¹METHOD (COLORIMETRIC ASSAY ENDPOINT)
A/GR - DERIVED FROM SERUM ALBUMIN AND PROTEIN VALUES
SEGB - DERIVED FROM SERUM ALBUMIN AND PROTEIN VALUES

TEST NAME	TECHNOLOGY	VALUE	UNITS	NORMAL RANGE
TOTAL CHOLESTEROL	PHOTOMETRY	135	mg/dl	125-200
HDL CHOLESTEROL - DIRECT	**PHOTOMETRY**	**< 20**	**mg/dl**	**35-80**
LDL CHOLESTEROL - DIRECT	PHOTOMETRY	117	mg/dl	85-130
TRIGLYCERIDES	PHOTOMETRY	28	mg/dl	25-200
TC/ HDL CHOLESTEROL RATIO	**CALCULATED**	**6.8**	**Ratio**	**3 - 5**
LDL / HDL RATIO	**CALCULATED**	**5.8**	**Ratio**	**1.5-3.5**
VLDL CHOLESTEROL	CALCULATED	5.58	mg/dl	5 - 40
NON-HDL CHOLESTEROL	CALCULATED	115.4	mg/dl	< 160

Please correlate with clinical conditions.

Method :

CHOL - CHOD POD METHOD
HCHO - ENZYME SELECTIVE PROTECTION METHOD
LDL - HOMOGENOUS ENZYMATIC COLORIMETRIC ASSAY
TRIG - ENZYMATIC COLORIMETRIC METHOD (GPO) [HIGHLY INFLUENCED BY LEVEL OF FASTING]
TC/H - DERIVED FROM SERUM CHOLESTEROL AND HDL VALUES
LDL/ - DERIVED FROM SERUM HDL AND LDL VALUES
VLDL - DERIVED FROM SERUM TRIGLYCERIDE VALUES
NHDL - DERIVED FROM SERUM CHOLESTEROL AND HDL VALUES

***REFERENCE RANGES AS PER NCEP ATP III GUIDELINES:**

TOTAL CHOLESTEROL	(mg/dl)	HDL	(mg/dl)	LDL	(mg/dl)	TRIGLYCERIDES	(mg/dl)
DESIRABLE	<200	LOW	<40	OPTIMAL	<100	NORMAL	<150
BORDERLINE HIGH	200-239	HIGH	>60	NEAR OPTIMAL	100-129	BORDERLINE HIGH	150-199
HIGH	>240			BORDERLINE HIGH	130-159	HIGH	200-499
				HIGH	160-189	VERY HIGH	>500
				VERY HIGH	>190		

Alert !!! 10-12 hours fasting is mandatory for lipid parameters. If not, values might fluctuate.

TEST NAME	TECHNOLOGY	VALUE	UNITS	REFERENCE RANGE
TOTAL TRIIODOTHYRONINE (T3)	C.L.I.A	61	ng/dl	60-200
TOTAL THYROXINE (T4)	C.L.I.A	5.6	µg/dl	4.5-12
THYROID STIMULATING HORMONE (TSH)	C.L.I.A	1.95	µIU/ml	0.3-5.5

Comments : SUGGESTING THYRONORMALCY

Please correlate with clinical conditions.

Method :

T3 - COMPETITIVE CHEMI LUMINESCENT IMMUNO ASSAY
T4 - COMPETITIVE CHEMI LUMINESCENT IMMUNO ASSAY
TSH - SANDWICH CHEMI LUMINESCENT IMMUNO ASSAY

TEST NAME	TECHNOLOGY	VALUE	UNITS	NORMAL RANGE
BLOOD UREA NITROGEN (BUN)	PHOTOMETRY	14.4	mg/dl	7 - 25
CREATININE - SERUM	**PHOTOMETRY**	**1.29**	**mg/dl**	**0.6-1.1**
BUN / SR.CREATININE RATIO	CALCULATED	11.16	Ratio	9:1-23:1
CALCIUM	PHOTOMETRY	8.93	mg/dl	8.8-10.6
URIC ACID	**PHOTOMETRY**	**4.01**	**mg/dl**	**4.2 - 7.3**

Please correlate with clinical conditions.

Method :

BUN - KINETIC UV ASSAY.
SCRE - CREATININE ENZYMATIC METHOD
B/CR - DERIVED FROM SERUM BUN AND CREATININE VALUES
CALC - ARSENAZO III METHOD, END POINT.
URIC - URICASE / PEROXIDASE METHOD

TEST NAME	TECHNOLOGY	VALUE	UNITS
EST. GLOMERULAR FILTRATION RATE (eGFR)	**CALCULATED**	**78**	**mL/min/1.73 m2**

Reference Range :-

> = 90 : Normal
60 - 89 : Mild Decrease
45 - 59 : Mild to Moderate Decrease
30 - 44 : Moderate to Severe Decrease
15 - 29 : Severe Decrease

Clinical Significance

The normal serum creatinine reference interval does not necessarily reflect a normal GFR for a patient. Because mild and moderate kidney injury is poorly inferred from serum creatinine alone. Thus, it is recommended for clinical laboratories to routinely estimate glomerular filtration rate (eGFR), a "gold standard" measurement for assessment of renal function, and report the value when serum creatinine is measured for patients 18 and older, when appropriate and feasible. It cannot be measured easily in clinical practice, instead, GFR is estimated from equations using serum creatinine, age, race and sex. This provides easy to interpret information for the doctor and patient on the degree of renal impairment since it approximately equates to the percentage of kidney function remaining. Application of CKD-EPI equation together with the other diagnostic tools in renal medicine will further improve the detection and management of patients with CKD.

Reference

Levey AS, Stevens LA, Schmid CH, Zhang YL, Castro AF, 3rd, Feldman HI, et al. A new equation to estimate glomerular filtration rate. Ann Intern Med. 2009;150(9):604-12.

Please correlate with clinical conditions.
Method:- CKD-EPI Creatinine Equation

~~ End of report ~~