Sample Collection Date	01-04-2021 11:22	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210073864		
Name	MS. SHIVANI MODI	**Age / Sex**	49 Years / FEMALE

Test (Methodology)	Result	Biological Reference Interval
HAEMATOLOGY		
COMPLETE BLOOD COUNT		
HAEMOGLOBIN	14.1 g/dL	11 - 15
TOTAL LEUCOCYTE COUNT	7190 Cells/cu.mm	4000 - 11000
RED BLOOD CELL COUNT	4.96 mill/cu.mm	4.2 - 5.5
PACKED CELL VOLUME	43.80 %	36 - 46
MCV (MEAN CORPUSCULAR VOLUME)	88.31 fL	79 - 98
MCH (MEAN CORPUSCULAR HB)	28.43 pg	26 - 32
MCHC (MEAN CORPUSCULAR HB CONC)	32.19 g/dL	30 - 36
RED CELL DISTRIBUTION WIDTH	14.50 %	11.5 - 15.5
PLATELET COUNT	332000 /cu.mm	150000 - 450000
DIFFERENTIAL LEUCOCYTE COUNT		
SEGMENTED NEUTROPHILS	57 %	40 - 80
LYMPHOCYTES	36 %	20 - 40
MONOCYTES	6 %	2 - 10
EOSINOPHILS	1 %	1 - 6
BASOPHILS	0 %	0 - 2
ABSOLUTE LEUCOCYTE COUNT		
NEUTROPHIL	4098 cells/mm3	1800-7700
LYMPHOCYTE	2588 cells/mm3	1000-4800
MONOCYTE	431 cells/mm3	0-800
EOSINOPHIL	72 cells/mm3	0-450

BLOOD PICTURE

RBCs are predominantly normocytic normochromic. WBC series is essentially unremarkable. Platelets are adequate on smear.

Sample Type: K2 EDTA Whole blood
Methodology: Automated cell counter, Sysmex XN-1000 based on Optical / Fluorescence / Flow Cytometry / SLS .

ERYTHROCYTE SEDIMENTATION RATE		
E.S.R.WESTERGREN [Automated]	8 mm 1st Hr	0 - 20

**** End of HAEMATOLOGY Report ****

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Test (Methodology)	Result	Biological Reference Interval

Sonal Jain

DR. SONAL JAIN
D.M. (Hematology, A.I.I.M.S.)
(Head Hematology)

Authentication : 01-04-2021 12:36
Printed on : 01-04-2021 18:59

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Lab Ref. No.	210073864		
Name	MS. SHIVANI MODI	**Age / Sex**	49 Years / FEMALE

Test (Methodology)	Result	Biological Reference Interval
BIOCHEMISTRY & IMMUNOTURBIDIMETRY		
GLUCOSE Fasting ,Plasma [Hexokinase]	81.00 mg/dL	60 - 100
AMYLASE,Serum [Enzymatic Assay]	63.00 U/L	28 - 100
C.P.K. ,Serum [U.V.Assay]	80.00 U/L	26 - 192
MAGNESIUM,Serum [Chlorophosphonazo III]	2.20 mg/dL	1.6-2.6
LIPID PROFILE		
® CHOLESTEROL,Serum [Enzymatic Assay]	**240.00 mg/dL**	130 - 220
TRIGLYCERIDES,Serum [Enzymatic Colorimetric]	**212.00 mg/dL**	50 - 150
H.D.L. CHOLESTEROL,Serum [Homogeneous Enzymatic]	40.00 mg/dL	30 - 75
L.D.L. CHOLESTEROL,Serum [Homogeneous Enzymatic Assay]	**172.00 mg/dL**	30 - 100
VLDL CHOLESTEROL,Serum [Calculated]	**42.40 mg/dL**	10 - 30
NON H.D.L. CHOLESTEROL,Serum [Calculated]	200.00 mg/ dL	
CHOLESTEROL-HDL RATIO,Serum [Calculated]	6.00 : 1	
CHOLESTEROL-TRIGLYCERIDE RATIO,Serum [Calculated]	1.13 : 1	
Lipoprotein [a] level, Serum [Immunoturbidmetric Assay]	6.4 mg /dL	0-30

• This test is performed to evaluate the risk of developing cardiovascular disease (CVD) in patients with strong or suspected family history of early heart disease and stroke, high lipid levels, or those with intermediate cardiovascular risk.

• The level of Lp(a) is generally determined by the genes and is not easily modified by lifestyle changes or medication, such as statins.

• However, some non-genetic conditions may also lead to elevated Lp(a). These include low oestrogen, severe underactive thyroid (hypothyroidism), uncontrolled diabetes, chronic kidney disease and nephrotic syndrome.

• Lp(a) behaves like an acute phase protein and should not be measured during periods of active inflammation and for at least 1 month after Myocardial infarction or Stroke.

APOLIPOPROTEIN A-1 (APO A-1) [Immuno Turbidimetric Assay]	143.00 mg/dL	108 - 225
APOLIPOPROTEIN B (APO-B) [Immuno Turbidimetric Assay]	139.00 mg/dL	60 - 141
APO-B/APO-A1	0.972	0.35-0.98

1. Apolipoproteins are the protein constituents of the Lipoproteins.
2. Apolipoprotein A1 (ApoA1) is the primary protein component of high-density lipoprotein (HDL).
3. Apolipoprotein B (Apo B) is the primary protein component of low-density lipoprotein (LDL) and is a more powerful independent predictor of Coronary Heart Disease (CAD) than LDL.
4. A high level of Apo A 1 and a low level of Apo B correlate best with a low risk of Lipid disorder and CAD.
5. Decreased ApoA1 and elevated Apo B are associated with increased risk of Lipid disorder and CAD.
6. Elevated Apo B: Apo A 1 ratio can reflect a lipid metabolism disorder and the risk of developing CAD particularly well, thus providing an excellent addition to the classical HDL/LDL cholesterol determination.
7. Apolipoprotein studies help in monitoring coronary bypass surgery patients with regard to risk and severity of re -stenosis.

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Test (Methodology)	Result	Biological Reference Interval

They are also useful in assessing risk of re-infarction in patients of Myocardial infarction.

Biological Reference Value:
Apo B to Apo A1 Ratio-As per NCEP Guidelines
0.35 - 0.98 (Desirable)
>0.98 (Increased CAD Risk)

HOMOCYSTEINE LEVEL,Serum [CMIA]	10.10 µmol/L	4.44-13.56

- An elevated homocysteine concentration is an independent risk factor for cardiovascular disease (CVD).
- It is considered informative in patients being evaluated for suspected nutritional deficiencies (Vitamin B6, B12 and folate) and inborn errors of metabolism like homocysteinemia or homocystinuria.
- Factors that may influence and increase homocysteine levels are - Vitamin B6, B12 and folate deficiency, age, smoking, poor life style & diet, chronic kidney disease and hypothyroidism.
- It is especially useful in young CVD patients (< 40 years).
- In known cases of CVD, high levels should be used as a prognostic marker for CVD events and mortality.

KIDNEY FUNCTION TEST

UREA,Serum [Kinetic Method]	18.50 mg/dL	10 - 50
BUN (BLOOD UREA NITROGEN),Serum	8.64 mg/dL	4.7 - 23.4
CREATININE,Serum [Kinetic Jaffe's method]	0.66 mg/dL	0.5-1.3
URIC ACID,Serum [Enzymatic Assay]	3.60 mg/dL	2 - 7
IONIZED CALCIUM,Serum [BAPTA Method]	1.19 mmol/L	1.1-1.25
TOTAL CALCIUM,Serum [BAPTA Method]	9.52 mg/dL	8.6-10
PHOSPHORUS,Serum [Molybdate UV]	3.70 mg/dL	2.5-4.5
SODIUM,Serum [Ion selective electrode]	138.00 mmol/L	132 - 150
POTASSIUM,Serum [Ion selective electrode]	4.40 mmol/L	3.5 - 5
CHLORIDE,Serum [Ion selective electrode]	102.00 mmol/L	98 - 107

LIVER FUNCTION TEST

	BILIRUBIN (Total),Serum [Diazo Method]	0.50 mg/dL	0.2 - 1.00
	BILIRUBIN (DIRECT),Serum [Diazo Method]	0.15 mg/dL	0-0.30
	BILIRUBIN (INDIRECT),Serum [Calculated]	0.35 mg/dL	0.1 - 0.8
®	S.G.O.T. Serum [Kinetic Method]	**33.00 U/L**	5 - 32
®	S.G.P.T. Serum [Kinetic Method]	**57.00 U/L**	5 - 33
	ALKALINE PHOSPHATASE,Serum [Kinetic (PNP)]	**129.00 U/L**	35 - 104
	G.G.T.P. Serum [Enzymatic Assay]	41.00 U/L	6 - 42

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Test (Methodology)	Result	Biological Reference Interval
TOTAL PROTEINS,Serum [Biuret method]	7.20 g/dL	6 - 8.5
ALBUMIN,Serum [Colorimetric BCG]	4.40 g/dL	3.5 - 5
GLOBULIN,Serum [Calculated]	2.80 g/dL	
ALBUMIN/GLOBULIN RATIO,Serum [Calculated]	1.57	1.1 - 2.2

**** End of BIOCHEMISTRY & IMMUNOTURBIDIMETRY Report ****

® MARKED RESULT IS RECHECKED AND VERIFIED

DR. MANAVI DANG
M.D. (PATHOLOGY)
(Associate Director)

Authentication : 01-04-2021 12:36
Printed on : 01-04-2021 18:59

Sample Collection Date	01-04-2021 11:22	**DDL Center**	Dr.Dangs Lab
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Test (Methodology)	Result	Biological Reference Interval

IMMUNO ASSAYS

LUTEINISING HORMONE LEVEL, Serum [ECLIA] — 45.68 mIU/mL

This assay is used for evaluating patients with suspected Hypogonadism, predicting ovulation, menopause, evaluating Infertility/menstrual irregularities, precocious puberty, PCOD and diagnosing pituitary disorders. It is essential for evaluating the reproductive cycle.

Biological Reference Interval:

Males:	1.7 - 8.6 mIU/mL
Females:	
Follicular phase	2.4 - 12.6 mIU/mL
Ovulatory phase	14 - 96 mIU/mL
Luteal phase	1.0-11.4 mIU/mL
Post menopause	7.7-59 mIU/mL

FOLLICLE STIMULATING HORMONE LEVEL, Serum [ECLIA] — 62.79 mIU/mL

This assay is useful in management and treatment of infertility. It also evaluates gonadal function disorders, predicts ovulation and menstrual irregularities, and helps in diagnosing pituitary disorders.

Biological Reference Interval:

Males:	1.5 - 12.4 mIU/mL
Females:	
Follicular phase	3.5 - 12.5 mIU/mL
Ovulatory phase	4.7 - 21.5 mIU/mL
Luteal phase	1.7 - 7.7 mIU/mL
Post menopause	25.8 - 134.8 mIU/mL

PROLACTIN LEVEL, Serum [ECLIA] — 6.25 ng/mL — 4.8 - 23.3

Advice: Mid-morning pooled sample for prolactin estimation.

This assay is a useful in the evaluation of amenorrhea, galactorrhea, abnormal nipple discharge, Infertility, Pituitary tumours and monitoring therapy in prolactin producing tumours. It also helps in differential diagnosis of male & female hypogonadism.

NOTE: PROLACTIN IS SECRETED IN A PULSATILE MANNER AND IS ALSO INFLUENCED BY A VARIETY OF PHYSIOLOGIC STIMULI. IT IS STRONGLY RECOMMENDED TO DO TEST IN MID-MORNING POOLED SAMPLES (3 SAMPLES AT 20-30-MINUTE INTERVALS).

ESTRADIOL LEVEL, Serum [ECLIA] — 23.04 pg/mL

This assay is useful for evaluating hypogonadism and oligomenorrhea in females. It assesses ovarian status including follicle development for assisted reproduction protocols. It evaluates feminization including gynecomastia in males. This assay forms a part of the diagnosis and work up of precocious and delayed puberty in females. It is also useful in monitoring low dose female hormone replacement therapy in post-menopausal women and for monitoring anti-estrogen therapy.

Biological Reference Interval:

Adult:

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Test (Methodology)	Result	Biological Reference Interval

Males: 11.3 -43.2 pg/ml

Females:
Follicular phase 30.9 - 90.4 pg/ml
Ovulation Phase 60.4 - 533 pg/ml
Luteal Phase 60.4 - 232 pg/ml
Postmenopause 5.0 - 138 pg/ml

Pregnancy:
1st Trimester: 154 - 3243 pg/ml
2nd Trimester: 1561 - 21,280 pg/ml
3rd Trimester: 8525 - 30,000 pg/ml

PROGESTERONE LEVEL, Serum [ECLIA] — 0.05 ng/mL

This assay is useful to determine the cause of infertility, track ovulation, help diagnose an ectopic or failing pregnancy, monitor progesterone replacement therapy, or help diagnose the cause of abnormal uterine bleeding, It may also be used in the workup of patients with Adrenal / Testicular tumours.

Biological Reference Interval:

Adult:
Males: 0.050- 0.149 ng/ml

Female:
Follicular phase 0.050 - 0.193 ng/ml
Ovulation Phase 0.055 - 4.14 ng/ml
Luteal Phase 4.11 - 14.5 ng/ml
Postmenopause 0.050 - 0.126 ng/ml

Pregnancy:
1st Trimester: 11 - 44.3 ng/ml
2nd Trimester: 25.4 - 83.4 ng/ml
3rd Trimester: 58.7 - 214.0 ng/ml

DEHYDRO-EPIANDROSTERONE SULPHATE, Serum [ECLIA]	121.70 µg/dL	35.4-256

This assay is useful in identification of androgen secreting adrenal tumours. It is an adjunct in the diagnosis of Congenital adrenal hyperplasia. It is also useful in the diagnosis of Premature adrenarche. In women, DHEAS levels are often measured, along with other hormones to help diagnose polycystic ovary syndrome (PCOS) and to help rule out other causes of infertility, amenorrhea, and hirsutism.

THYROID PROFILE

FREE TRIIODOTHYRONINE [FT3], Serum [ECLIA]	2.91 pg/mL	2.00-4.40
FREE THYROXINE [FT4], Serum [ECLIA]	1.34 ng/dL	0.93-1.70
T.S.H.[ULTRASENSITIVE], Serum [ECLIA]	2.97 µIU/mL	0.27-4.20

- Thyroid profile is done to evaluate thyroid gland function and help diagnose thyroid disorders causing hypothyroidism (decreased thyroid activity) and hyperthyroidism (increased thyroid activity).

- The most common causes of thyroid dysfunction are autoimmune diseases. Graves-disease causes hyperthyroidism and Hashimoto thyroiditis causes hypothyroidism. Both hyperthyroidism and hypothyroidism can also be caused by thyroiditis,

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Test (Methodology)	Result	Biological Reference Interval

thyroid cancer.

- Assays detecting unbound or free form of thyroid hormones are highly sensitive to detect thyroid dysfunction. They reflect the active form of the hormone, unaffected by non-thyroidal factors.
- The FT3 and FT4 levels fluctuate significantly during birth and can remain much higher than adult values during the first month after birth. Proper clinical interpretation and correlation of the reports in neonates is mandatory and preterm thyroid profiles should be interpreted with caution.

Biological reference Interval:

Age Group	FT3 in pg/mL	FT4 in ng/dL	TSH in ulU/ml
<12 months	2.9 - 6.8	1.1 - 2.0	1.36 - 8.8
1 - 6 Years	2.5 - 5.3	0.9 - 1.7	0.85 - 6.5
7 - 12 Years	2.5 - 5.6	1.1 - 1.7	0.28 - 4.3
13 - 17 Years	2.4 - 5.0	1.1 - 1.8	0.28 - 4.3
Adults	2.0 - 4.4	0.93 - 1.7	0.27 - 4.2
Cord Blood>37 Weeks	Not available	1.1 - 2.0	2.3 - 13.2

Pregnancy	FT3 in pg/mL	FT4 in ng/dL	TSH in ulU/mL (As per American Thyroid Association)
1st Trimester	2.5 - 3.9	0.9 - 1.5	0.100 - 2.500
2nd Trimester	2.1 - 3.6	0.8 - 1.3	0.200 - 3.000
3rd Trimester	2.0 - 3.3	0.7 - 1.2	0.300 - 3.000

NOTE: TSH LEVELS ARE SUBJECT TO CIRCADIAN VARIATION, REACHING PEAK LEVELS BETWEEN 2-4 A.M. AND AT A MINIMUM BETWEEN 6-10 P.M. THE VARIATION IS OF THE ORDER OF 50 TO 206%, HENCE TIME OF THE DAY HAS INFLUENCE ON THE MEASURED SERUM TSH CONCENTRATIONS. (REF: TIETZ TEXTBOOK OF CLINICAL CHEMISTRY AND MOLECULAR DIAGNOSTICS-5TH EDITION Page 123). FLUCTUATING TSH VALUES SHOULD BE CLINICALLY CORRELATED.

GLYCOSYLATED HAEMOGLOBIN [HBA1C]

GLYCOSYLATED HAEMOGLOBIN [HBA1C] ,Whole Blood [HPLC]	5.40 %	4.4-6.5
*Mean Plasma Glucose	115 mg/dL	

ANALYZER: Tosoh Automated Glycohemoglobin Analyzer HLC-723G8 (G8)
METHODOLOGY: HPLC

- This assay is useful for diagnosing Diabetes and evaluating long term control of blood glucose concentrations in diabetic patients. It reflects the mean glucose concentration over the previous period of 8 - 12 weeks and is a better indicator of long-

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Test (Methodology)	Result	Biological Reference Interval

term glycemic control as compared with blood and urine glucose levels due to lesser day to day variation.
- Specifically, the A1C test measures what percentage of hemoglobin is coated with sugar (glycated). Higher the A1C level, the poorer is blood sugar control and higher is the risk of diabetes complications.
- Disorders associated with a decreased erythrocyte life-span, as well as individuals with recent and significant blood loss and chronic renal failure, exhibit low glycated Hb values.
- The test is performed by Gold standard technique of HPLC.
- Effectiveness of A1C may be limited in conditions that affect RBC turnover, such as hemolytic anemia, glucose-6-phosphate dehydrogenase deficiency, recent blood transfusions, drugs that stimulate erythropoiesis, end-stage kidney disease, and pregnancy.
- Hemoglobin variants may interfere with A1c results. Fructosamine level estimation is recommended in such cases.

As per American Diabetes Association (ADA)	
Reference Group	**HbA1c in %**
Nondiabetic adults > =18 years	<5.7
At risk (Prediabetes)	5.7 -6.4
Diagnosing Diabetes	>=6.5

Comment: The final report has been generated after reviewing the HPLC Chromatogram.

IgE LEVEL,Serum [ECLIA]	**683.10 IU/mL**	5 - 100

- This assay is useful for evaluation of patients suspected with allergic disease, primary immunodeficiency, infections, malignancies, other inflammatory diseases and allergic bronchopulmonary aspergillosis.

- IgE is the most important trigger molecule for allergic information. The level of IgE is low during the first year of life, gradually increases with age and reaches adult levels after 10 years.

- IgE is a mediator of allergic response. Quantitative measurement can provide useful information for differential diagnosis of atopic and non-atopic disease. Patients with atopic diseases like allergic asthma, allergic rhinitis & atopic dermatitis have moderately elevated IgE levels.

- An elevated/normal concentration does not indicate presence or absence of an allergic disease and must be interpreted in the clinical context of the patient, including age, gender, travel history, potential allergen exposure and family history.

- The total IgE test measures the overall quantity of immunoglobulin E in the blood, not the amount of a specific type. It can be used to detect an allergic response in the body rather than a specific allergy. This test may compliment the information provided by allergy tests that detect allergen-specific IgE

COMMENT: For testing options to specific allergies (food/respiratory), kindly contact front office for details.

VITAMIN D-3 LEVEL,Serum [ECLIA]	44.50 ng/mL	25-100

Interpretation:
Less than 12 ng/ml: Definitely deficient
12-25 ng/ml: Insufficient
25 - 100 ng/ml: Adequate
More than 100 ng/ml: Toxic

THE TEST IS BEING PERFORMED ON FDA APPROVED FULLY AUTOMATED REFERENCE IVD PLATFORM .

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Test (Methodology)	Result	Biological Reference Interval

The two most important forms of Vitamin D are Vitamin D3 and Vitamin D2. In contrast to Vitamin D3, Vitamin D2 has to be taken up with food.In the human body Vitamin D3 and D2 are bound to Vitamin D- binding protein in plasma and transported to liver where both are hydroxylated in position 25 forming 25-OH Vitamin D. 25-OH Vitamin D is the metabolite that should be measured in blood to determine the overall Vitamin D status because it is the major storage form of Vitamin D in the human body.More than 95% of 25-OH Vitamin D, measurable in serum, is 25-OH Vitamin D3 whereas 25-OH Vitamin D2 reaches measurable levels only in patients taking Vitamin D2 supplements. Vitamin D is a common cause of secondary hyperparathyroidism. Elevations of PTH levels, especially in elderly Vitamin D deficient adults can result in osteomalacia, increased bone turnover, reduced bone mass and risk of bone fractures.

Reference - Position paper of the International Osteoporosis Foundation.

®	**VITAMIN B-12 LEVEL, Serum** [ECLIA]	**1664.00 pg/mL**	197 - 771
	COMMENT:	Please correlate with history of intake of B12 supplements.	

- Vitamin B12 (cobalamin) is a water-soluble vitamin and is normally found in animal products including meats, eggs and milk & milk products. It cannot be produced in the body and must be supplied by the diet.
- It is necessary for hematopoiesis and normal neuronal function. As it is obtained mainly from animal proteins, in humans, it requires intrinsic factor (IF) for absorption.
- Vitamin B12 deficiency may be due to lack of IF secretion by the gastric mucosa (pernicious anaemia) or intestinal malabsorption. It is also seen in vegetarians with inadequate B12 intake.
- Its deficiency frequently causes macrocytic anaemia, glossitis, peripheral neuropathy, weakness, ataxia, poor coordination and affective behavioural changes.
- An increase in the levels of Vitamin B 12 is mostly due to excessive ingestion of multivitamin capsules with B12. Conditions such as liver diseases and myeloproliferative disorders occasionally exhibit increased levels.
- Serum homocysteine levels are also elevated in B12 deficiency.

FOLIC ACID LEVEL, Serum [CMIA]	7.80 ng/mL	3.1 - 20.5

- Folic acid, also known as Vitamin B9, is a water-soluble vitamin and is present in a variety of vegetarian and non-vegetarian foods.
- It is necessary for cell division and synthesis of DNA, especially in a developing fetus and is crucial during early pregnancy to reduce the risk of birth defects of the brain and spine.
- Approximately 20% is absorbed daily and is derived from dietary sources, the remainder is synthesized by intestinal microorganisms.
- Significant folate deficiency is characteristically associated with macrocytosis and megaloblastic anemia.
- Folate deficiency is most commonly due to insufficient dietary intake.
- Low levels are seen in: Megaloblastic /macrocytic/hemolytic anemias, Infantile hyperthyroidism, Alcoholism, Malnutrition, Scurvy, Liver disease, B12 deficiency, adult Celiac disease, Crohn's disease, Carcinomas, Myelofibrosis, pregnancy, extensive intestinal resection and severe exfoliative dermatitis.

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Test (Methodology)	Result	Biological Reference Interval

● Serum homocysteine levels are also elevated in folate deficiency.

ZINC, Serum [Colorimetric]	96.7 µg/dL	46-150

• Zinc is an essential trace element with important functions throughout the body. It is required for the catalytic activity of various enzymes and plays an important role in immune function, protein synthesis, wound healing, DNA synthesis and cell division.

• This assay is used for detection of zinc deficiency which occurs due to lack of dietary absorption or loss after absorption.

• Elevated serum zinc is of minimal clinical interest. The only known effect of excessive zinc ingestion is interference with copper absorption leading to hypocupremia.

• There is a circadian variation with levels peaking around 9 am and 6 pm. Zinc levels decrease post prandially.

• Decreased Levels are observed in synthetic diet therapies, acrodermatitis enteropathica, alopecia, typhoid, pulmonary tuberculosis, treatment with anabolic steroids & metal chelating drugs, liver metastasis, celiac sprue, thalassemia major, pernicious anaemia, acute Myocardial infarction, renal disease, pregnancy, lactation & old age.

• Increased levels are observed in primary osteosarcoma of bone, coronary heart disease, arteriosclerosis, hemodialysis with zinc containing dialysate, familial hyperzincemia & anaemia.

IRON, Serum [Direct Colorimetric Assay]	117.00 µg/dL	60 - 170
T.I.B.C. [Calculated]	362.00 µg/dL	250 - 450
U.I.B.C. Serum [Direct Determination with FerroZine]	245.00 µg/dL	135-392
TRANSFERRIN SATURATION [Calculated]	32.32 %	20-50
FERRITIN LEVEL, Serum [ECLIA]	76.10 ng/mL	

• Ferritin test is used to assess body's current store of iron and to evaluate the severity of anemia or iron overload.

• Ferritin is also an acute phase reactant.

• The concentration of serum ferritin corresponds with that of tissue ferritin and correlates with body iron stores in the absence of inflammation.

• This assay is clinically useful in distinguishing between Iron deficiency anemia (low level) and anemia of chronic disease (normal or high level).

• It is elevated in inflammation and infections, in iron overload states and also in some malignancies.

• A low serum ferritin reflects depleted iron stores but not necessarily the severity of depletion, as it progresses.

• Serum ferritin is of limited usefulness in diagnosing iron deficiency during pregnancy, as concentration falls during late pregnancy, even when bone marrow iron is present.

• Reference ranges updated. Please correlate results clinically.

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Test (Methodology)	Result	Biological Reference Interval

Biological reference Interval:

Adults:

Males:	20 - 250 ng/mL
Females:	10 - 120 ng/mL

Children:

Newborn:	25 - 200 ng/mL
1 Month:	200 - 600 ng/mL
2 - 5 Months:	50 - 200 ng/mL
6 Months - 15 yr:	07 - 140 ng/mL

**** End of IMMUNO ASSAYS Report ****

® MARKED RESULT IS RECHECKED AND VERIFIED

DR. MANAVI DANG
M.D. (PATHOLOGY)
(Associate Director)

Authentication : 01-04-2021 12:36
Printed on : 01-04-2021 18:59

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Test (Methodology)	Result	Biological Reference Interval

SEROLOGY & IMMUNOLOGY

ANTI-MULLERIAN HORMONE, Serum [ECLIA] 0.02 ng/mL

• Anti-mullerian hormone (AMH), is produced by ovarian granulosa cells in females and Sertoli cells of the testis in males.

• AMH is used for the evaluation of ovarian reserve and prediction of the outcome of Assisted Reproductive Technology.

• Serum AMH levels are barely detectable at birth in females, reach their highest levels after puberty, decrease progressively thereafter with age, and become undetectable at menopause.

Clinical Application

• To assess ovarian status, including follicle development, ovarian reserve, and ovarian responsiveness, as part of evaluation for infertility and assisted reproduction protocols.

• To assess ovarian function in patients with Polycystic ovarian Syndrome (PCOS).

• To assess menopausal status, including premature ovarian failure.

• To evaluate testicular function in infants and children.

• To evaluate infants with ambiguous genitalia and other intersex conditions.

• To diagnose and monitor patient with AMH secreting Ovarian granulosa cell tumors.

Recommended reference ranges as adopted by major referral/IVF centers in India are as follows:

Reference Range: 2.2 - 6.8 ng/ml

Ovarian Fertility:

Optimal	4.0 - 6.8
Satisfactory	2.2 - 3.9
Low	0.3 - 2.19
Very Low	0.0 - 0.29
High	>6.8

C-REACTIVE PROTEIN [High Sensitivity], Serum [Immunoturbidimetry] 0.20 mg/dL 0 - 0.5

Biological reference value: < 0.5 mg/dL

Note: Persistent elevation of hs-CRP levels above 1.0 mg/dL may be associated with infection and inflammation.

Interpretation:

1. The hs-CRP test accurately detects lower levels than the standard CRP test and is more precise when measuring baseline

Sample Collection Date	01-04-2021 11:22	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210073864		
Name	MS. SHIVANI MODI	**Age / Sex**	49 Years / FEMALE

Test (Methodology) **Result** **Biological Reference Interval**

(i.e. normal) concentrations and enables a measure of chronic inflammation.

2. This test is a non-specific marker of inflammation and is used for evaluation of inflammatory disorders and associated diseases, infections and tissue injury. It's concentrations increase rapidly and dramatically in response to tissue injury or inflammation.

3. hs-CRP is useful for assessment of risk of developing myocardial infarction in individuals, presenting with acute coronary syndrome.

Relative cardiovascular risk is Low if hs-CRP value is <0.1 mg/dL, Moderate if 0.1 - 0.3 mg/dL and High if >0.3 mg/dL

4. hs-CRP is also useful for assessment of risk of developing cardiovascular disease or ischemic events in individuals who do not manifest disease at present.

5. Increase in CRP values are non-specific for many disease processes and should not be interpreted without a complete clinical evaluation.

6. It is important to monitor the CRP concentration during the acute phase of illness.

Note: Conversion factor: mg/dL X 10 = mg/L

**** End of SEROLOGY & IMMUNOLOGY Report ****

DR. MANAVI DANG
M.D. (PATHOLOGY)
(Associate Director)

Authentication : 01-04-2021 12:36
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CONDITIONS OF REPORTING

- In case of alarming or unexpected test results you are advised to contact the laboratory immediately for further discussions and action. Laboratory results are meant to be correlated with the patient's clinical history.
- The report will carry the name and age provided at the time of registration.
- Reporting of tests will be as per defined laboratory turn around time for each test. The same will be informed to the patient during first point of contact i.e. registration or phlebotomy as the case may be.
- Test results & reference ranges vary depending on the technology and methodology used.
- Rarely a second sample may be requested for an indeterminate result or any other pre-analytical / analytical reason.
- Reports can be received either as a hard copy or an email on your personal ID. Reports can also be delivered via courier. Payments can be made online on our website. Only reports with no pending payments are mailed, uploaded or dispatched.
- Reports can also be accessed via Dr. Dangs lab website or through the Dr. Dangs mobile application on IOS and android using the unique ID and password provided to you during registration or received by you via SMS.
- Home collection sample facility is provided with prior appointment. Request for same to be given on 999-999-2020, booked online on **www.drdangslab.com** or through the Dr. Dangs mobile application on IOS and android.
- A digital invoice for tests performed is available on our website and can be accessed by using the unique I.D. and password provided.
- To maintain confidentiality, certain reports may not be mailed at the discretion of the management.
- In case of any queries pertaining to your test results or to provide feedback/suggestions please call us on 01145004200 or mail us at **info@drdangslab.com.**
- 48 hour notice is required for the issuing of slides and blocks.
- Test results are not valid for medico legal purposes.
- The courts (forums) at Delhi shall have exclusive jurisdiction in all disputes/claims concerning the tests and/or results of the tests.
- * For any change in timings, please visit our website.

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