Toprani Advanced Lab Systems

Suflam Apartment, 10 Haribhakti colony, Race Course, Vadodara - 390 007
Ph. : 2341442 fax : +91-265-2341443, e-mail : topranilabs@hotmail.com

MC-2135

Dr. Harsukh Toprani M.D.
Dr. Tushar Toprani M.D.

Name : MS. JUI PATEL
Ref. by : DR.SEJAL SHAH
Reg. Date : 12/06/2021 10:33 **Accession No.** : 0

Lab Ref No. : **B74792**
Age / Sex : 41 Year(s) / Female
Pt. Id :

NON FASTING

Report Status Final

HAEMATOLOGY

Specimen : WHOLE BLOOD EDTA
Coll. 12/06/2021 10:43: Lab Collection

Test Parameter	Result(s)	Biological Reference Interval (Adult)
Hb Indices		
Hb	**11.5 gm %**	Male 14 - 17.4 Female 12.3 - 15.3
RBC	**3.71 mil/cmm**	Male 4.5 - 5.9 Female 4.5 - 5.1
P.C.V.	**33.7 %**	Male 41.5 - 50.4 Female 36 - 45
M.C.V.	**90.8 fl**	80 - 96
M.C.H.	**31.0 pg**	27.5 - 33.2
M.C.H.C.	**34.1 %**	33.4 - 35.5
RDW - SD	**41.6 fl**	Male : 35.1 - 43.9 Female : 36.4 - 46.3
Total W.B.C.	**8570 per cu mm**	4000 - 12000
Platelets		
Platelets	**322000 per cu mm**	150000 - 400000 per cu mm
W.B.C. differential count		
Polymorphs %	**67.6 %**	40 - 80
Lymphocytes %	**26.4 %**	20 - 40
Eosinophil %	**1.6 %**	1 - 6
Monocytes %	**3.7 %**	2 - 10
Basophils %	**0.7 %**	<1 - 2
Polymorphs (Abs. Value)	**5793 per cumm**	1800 - 7000
Lymphocytes (Abs. Value)	**2262 per cumm**	1000 - 4800
Eosinophil (Abs. Value)	**137 per cumm**	20 - 500
Monocytes (Abs. Value)	**317 per cumm**	upto 800
Basophils (Abs. Value)	**60 per cumm**	20 - 100

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HAEMATOLOGY

Specimen : WHOLE BLOOD EDTA
Coll. 12/06/2021 10:43: Lab Collection

Test Parameter	Result(s)	Biological Reference Interval (Adult)
Peripheral Smear		
P.S. (Overview)	**Predominantly Normocytic Normochromic RBCs.**	

------ End Of HAEMATOLOGY Report ------

Jalpa V Shah

Dr. Ruchi Agrawal
MD (Path)
GMC No. G-54544
Reported On : 12/06/2021 12:41

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MC-2135

Dr. Harsukh Toprani M.D.
Dr. Tushar Toprani M.D.

Name : MS. JUI PATEL
Ref. by : DR.SEJAL SHAH
Reg. Date : 12/06/2021 10:33 **Accession No.** : 0

Lab Ref No. : **B74792**
Age / Sex : 41 Year(s) / Female
Pt. Id :

NON FASTING

Report Status Final

BIOCHEMISTRY

Specimen : SERUM BIO
Coll. 12/06/2021 10:43: Lab Collection

Test Parameter	Result(s)	Biological Reference Interval (Adult)	
Uric Acid			
Uric Acid	**4.2 mg/dL**	Female: 2.3 - 6.6 (slightly higher after 60 years)	(ENZYMATIC, END POINT)
Immuno Serology			
Rheumatoid Factor c(RF)	**10 IU/mL**	0 - 14	(Immunoturbidimetry)
Test Note	.		

General Interpretation

All purpose cutoff value between a Positive and Negative is considered impractical for this test. Nonspecific positives generally give low titre.

Sensitivity and specificity of this test is about 70 % and hence false positive and false negative could occur. It is elevated in rheumatoid arthritis and other allied disorders.

Associated test : Anti CCP

While RA factor test by immunoassay is preferable to latex test, this test for diagnosis of rheumatoid arthritis has only 70 percent specificity. Anti CCP - new marker for rheumatoid arthritis has 97 percent of specificity while sensitivity (70 %) is the same. Also anti CCP can diagnose and prognosticate much earlier. American Rheumatology Association advocates use of two tests.

This sample is preserved for two days

C Reactive Protein			
C Reactive Protein, Immunoturbidimetry	**2.5 mg/L**	Upto 8.2	(Immunoturbidimetry)
Test Note	.		

- *CRP is one of the inflammatory markers. CRP rises and decreases rapidly within 4 to 8 hrs. Thus it is suitable for detection of current inflammation.*
- *Ultra sensitive (also known as cardio) CRP is especially useful in "atherosclerosis with Inflammation" and Neonatal septicemia. If other causes of CR elevation are ruled out, it is a marker for cardiac risk.*
- ***The AHA/CDC Scientific Statement concerning inflamation and cardiovascular markers reports that hsCRP values less than 1 mg/L are low risk fo cardiovascular disease prediction; values between 1 to 3 mg/L are average risk for cardiovascular disease prediction; and values more than 3 are hi risk for cardiovascular disease prediction.***
- *Additional literature for medical profession is available on request from the Lab*

------ End Of BIOCHEMISTRY Report ------

Bhumika Patel

Dr. Ruchi Agrawal
MD (Path)
GMC No. G-54544
Reported On : 12/06/2021 14:27

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Dr. Tushar Toprani M.D.

Name : MS. JUI PATEL
Ref. by : DR.SEJAL SHAH
Reg. Date : 12/06/2021 10:33 **Accession No.** : 0

Lab Ref No. : **B74792**
Age / Sex : 41 Year(s) / Female
Pt. Id :

NON FASTING

Report Status Final

Hb A1c

Specimen : WHOLE BLOOD EDTA, HBA1(

Coll. 12/06/2021 10:43: Lab Collection

Test Parameter	Result(s)	Biological Reference Interval (Adult)	
Hb A1c			
Hb A1c			
Hb A1c (by HPLC)	**5.3 %**	see below	.

Automated HPLC (Variant II Turbo). *Gold standard for Hb A1c.*
Method : NGSP certified, correlates to the Diabetes Control & Complications Trial (DCCT) reference study & traceable to the IFCC reference method
Improved linearity with ***lesser intereference as compared to D-10 analyzer***
Improved reporting in hemoglobinopathies with no interferences in reporting for HbF upto 25 %

e AG (estimated Average Glucose)	**105 mg/dL**	(Calculated)
Status/Therapy	**Not known**	
Test note	**.**	

Indicates Glycemic control of previous 2 to 3 months.
As per ADA recommendations, e AG (estimated average glucose) should be reported along with the Hb A 1 C results
This e AG has been derived from International A1c-Derived Average Glucose (ADAG) Study.This study presents a more refined and accurate formula.There is a difference between average glucose estimated by various point of care glucose estimation devices and this e AG.Both are not exactly comparable. Thus 7 % Hb A 1 C represents 154 mg/dL of e AG i.e. e - electronic average glucose)
Details are available from the Lab.

General Interpretation

Diagnosis (ADA criteria - 2012)	Glycemic control (ADA / EASD criteria - 2012)
Diabetes >= 6.5	*Reasonable Treatment Goal < 7 %*
Prediabetes 5.7 - 6.4	*Stringent control (select cases) < 6.5*
< 6.5 does not exclude diabetes diagnosed by GTT	*Less stringent goal (Select cases) 8 %*
Gestational ref. interval (Literature reports)	
Early pregnancy : 4.5 - 5.7	*Late pregnancy : 4.4 - 5.6*

------ End Of Hb A1c Report ------

Jaimina Patel

Dr. Ruchi Agrawal
MD (Path)
GMC No. G-54544
Reported On : 12/06/2021 14:21

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Lab Ref No. : **B74792**
Age / Sex : 41 Year(s) / Female
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NON FASTING

Report Status Final

IMMUNOLOGY

Test Parameter	Result(s)	Biological Reference Interval (Adult)	
Vitamin D Total			
Vitamin D Total (ng/mL) 25 Hydroxy Calciferol	**48.2 ng/mL**	Deficiency : < 20 Insufficiency : 20 - 30 Optimal level : 30 - 100 Possible toxicity : > 100	(CLIA)
Vitamin D Total (nmol/L) 25 Hydroxy Calciferol	**120.5 nmol/L**	Deficiency : < 50 Insufficiency : 50 - 75 Optimal level : 75 - 250 Possible toxicity : > 250	(CLIA)
Test Note	.		

- *Vitamin D is expressed in two units. – nmol/L & ng/mL. (nmol/L x 0.40 = ng/mL, ng/mL x 2.50 = nmol/ L) . For convenience, result is submitt both units. One may use either for follow up.*
- *Vitamin D level varies amongst populations and according to sunshine exposure (peaks in summer months) and nutritional habits and status. H health based reference range is preferred to usual population based reference intervals.*
- *25 (OH) Calciferol {25 (OH) D} is circulating form of Vitamin D. It is at present the best indicator of Vitamin D status. Fraction of circulatin (OH) D is converted to its active metabolites 1,25 (OH) D mainly by the kidneys. This process is regulated by PTH.*
- *If on supplemental therapy, it should be stopped for 3 to 4 days prior to testing.*

------ End Of IMMUNOLOGY Report ------

Mubina

Dr. Payal Patel
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GMC No. G-33279
Reported On : 12/06/2021 14:37

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Dr. Tushar Toprani M.D.

Name : MS. JUI PATEL		**Lab Ref No.** : **B74792**	
Ref. by : DR.SEJAL SHAH		**Age / Sex** : 41 Year(s) / Female	
Reg. Date : 12/06/2021 10:33	**Accession No.** : 0	**Pt. Id** :	

NON FASTING

Report Status Final

IMMUNOLOGY

Test Parameter	Result(s)	Biological Reference Interval (Adult)
Vitamin D Total		
Comment	.	

Vitamin D estimation

25 (OH) Calciferol { 25 (OH) D } is circulating form of Vitamin D. Although with modest biological activity, it is the best indicator of Vitamin D status. Fraction of circulatir (OH) D is converted to its active metabolites 1, 25 (OH) D mainly by the kidneys. This process is regulated by PTH.

Classic (nutritional) vitamin D deficiency results in bone demineralization, which may lead to rickets in children and osteomalacia or osteoporosis in adults. Because calc levels affect muscle strength, vitamin D deficiency can result in muscle weakness and an increased risk of falls in the elderly.

Levels of 25 (OH) D vary with exposure to sunlight, peaking in the summer months.

Decreased vitamin D levels have been linked with an increased of colon, breast, and prostate cancer, as well as a higher mortality from these cancers, and an increased incidence of congestive heart failure, depression, and schizophrenia.

Though there is lack of consensus regarding an optimal serum level, most experts consider a 25 (OH) D level of 75 nmol/L (30 ng/ml) adequate. Given this definition, it h been estimated that 1 billion people worldwide, including 40% to 100% of US elderly and 50% or more of postmenopausal women being treated for osteoporosis, have vitamin D deficiency. Indian data is not available.

Individuals Suitable for Testing:

- Individuals with suspected vitamin D deficiency (e.g., those with persistent, nonspecific musculoskeletal pain; the elderly; housebound individuals; those wit malabsorptive syndromes; those receiving treatment with anticonvulsants)
- Individuals with suspected toxicity (e.g., those with anemia of obscure origin, unexplained renal disease, etc.)
- Individuals being treated for vitamin D-related disorders

What abnormal results mean:

Lower-than-normal levels suggest a vitamin D deficiency. This condition can result from:

- **Lack of exposure to sunlight**
- **Lack of adequate vitamin D in the diet**
- **Liver and kidney diseases**
- **Malabsorption**
- **Use of certain medicines, including phenytoin, phenobarbital, and rifampicin**

Higher-than-normal levels suggest excess vitamin D (Hypervitaminosis D).

Test Interpretation:

A 25 (OH) D concentration <75 nmol/L (30ng/ml) is an indication of vitamin D insufficiency. While a concentration <50 nmol/L (20ng/ml) is an indication of vitamin D deficiency. Both may lead to elevated PTH levels (secondary hyperparathyroidism) and vitamin D deficiency may be associated in its most severe forms with hypocalcer hypophosphatemia, and elevated alkaline phosphatase.

The most common cause of 25 (OH) D deficiency is lack of dietary intake or sun exposure. In addition to insufficient intake or production, disorders that are characterize by decreased absorption or excessive loss in the gastrointestinal tract, increased vitamin D metabolism, or impaired conversion of vitamin D to 25 (OH) D can cause decreased or increased 25 (OH) D levels.

Levels of 25 (OH) D vary with exposure to sunlight, peaking in the summer months.

25-Hydroxy Vitamin D Concentration in Various Disorders	
Disoder	**25OHD Concentration**
Vitamin D intoxication	↑
Nutritional rickets	↓
Osteomalacia	↓
Secondary hyperparathyroidism	↓
Fat Malabsorption disorders, short bowel syndrome	↓
Intestinal diseases causing excessive loss of Vitamin D_2 and D_3	↓
Anti-convulsant or anti-tuberculosis medications (increased metabolism)	↓
Severe parenchymal liver disease (impaired 25-hydroxylation of vitamin D)	↓
Severe renal disease (impaired 1α-hydroxylation of 25 OHD)	N
Vitamin D-dependent rickets, type I	Nor↑
Vitamin D-dependent rickets, type II	N

------ End Of IMMUNOLOGY Report ------

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