

# KOS Diagnostic Lab

(A Unit of KOS Healthcare)



Dr. Vinay Chopra MD (Pathology & Microbiology) Chairman & Consultant Pathologist Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Mrs. RAMESH AHUJA

**AGE/ GENDER** : 69 YRS/FEMALE **PATIENT ID** : 590616

COLLECTED BY : REG. NO./LAB NO. : 012412290006

REFERRED BY : FORTIS HOSPITAL (MOHALI) REGISTRATION DATE : 29/Dec/2024 08:23 AM

BARCODE NO. : 01523147 COLLECTION DATE : 29/Dec/2024 08:36AM

CLIENT CODE. : KOS DIAGNOSTIC LAB REPORTING DATE : 29/Dec/2024 11:14AM

**CLIENT ADDRESS**: 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit Biological Reference interval

# **CLINICAL CHEMISTRY/BIOCHEMISTRY**

### LIPID PROFILE: BASIC

		· Diloic	
CHOLESTEROL TOTAL: SERUM by CHOLESTEROL OXIDASE PAP	152.09	mg/dL	OPTIMAL: < 200.0 BORDERLINE HIGH: 200.0 - 239.0 HIGH CHOLESTEROL: > OR = 240.0
TRIGLYCERIDES: SERUM by GLYCEROL PHOSPHATE OXIDASE (ENZYMATIC)	106.19	mg/dL	OPTIMAL: < 150.0 BORDERLINE HIGH: 150.0 - 199.0 HIGH: 200.0 - 499.0 VERY HIGH: > OR = 500.0
HDL CHOLESTEROL (DIRECT): SERUM by SELECTIVE INHIBITION	56.04	mg/dL	LOW HDL: < 30.0 BORDERLINE HIGH HDL: 30.0 - 60.0 HIGH HDL: > OR = 60.0
LDL CHOLESTEROL: SERUM by CALCULATED, SPECTROPHOTOMETRY	74.81	mg/dL	OPTIMAL: < 100.0 ABOVE OPTIMAL: 100.0 - 129.0 BORDERLINE HIGH: 130.0 - 159.0 HIGH: 160.0 - 189.0 VERY HIGH: > OR = 190.0
NON HDL CHOLESTEROL: SERUM by CALCULATED, SPECTROPHOTOMETRY	96.05	mg/dL	OPTIMAL: < 130.0 ABOVE OPTIMAL: 130.0 - 159.0 BORDERLINE HIGH: 160.0 - 189.0 HIGH: 190.0 - 219.0 VERY HIGH: > OR = 220.0
VLDL CHOLESTEROL: SERUM by CALCULATED, SPECTROPHOTOMETRY	21.24	mg/dL	0.00 - 45.00
TOTAL LIPIDS: SERUM by CALCULATED, SPECTROPHOTOMETRY	410.37	mg/dL	350.00 - 700.00
CHOLESTEROL/HDL RATIO: SERUM by CALCULATED, SPECTROPHOTOMETRY	2.71	RATIO	LOW RISK: 3.30 - 4.40 AVERAGE RISK: 4.50 - 7.0



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**COLLECTED BY** REG. NO./LAB NO. :012412290006

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**CLIENT ADDRESS** : 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name	Value	Unit	Biological Reference interval
LDL/HDL RATIO: SERUM by CALCULATED, SPECTROPHOTOMETRY	1.33	RATIO	MODERATE RISK: 7.10 - 11.0 HIGH RISK: > 11.0 LOW RISK: 0.50 - 3.0 MODERATE RISK: 3.10 - 6.0 HIGH RISK: > 6.0
TRIGLYCERIDES/HDL RATIO: SERUM by CALCULATED, SPECTROPHOTOMETRY	1.89 <sup>L</sup>	RATIO	3.00 - 5.00

#### **INTERPRETATION:**

1. Measurements in the same patient can show physiological analytical variations. Three serial samples 1 week apart are recommended for

Total Cholesterol, Triglycerides, HDL & LDL Cholesterol.

2. As per NLA-2014 guidelines, all adults above the age of 20 years should be screened for lipid status. Selective screening of children above the age of 2 years with a family history of premature cardiovascular disease or those with at least one parent with high total cholesterol is recommended.

3. Low HDL levels are associated with increased risk for Atherosclerotic Cardiovascular disease (ASCVD) due to insufficient HDL being available

to participate in reverse cholesterol transport, the process by which cholesterol is eliminated from peripheral tissues.

4. NLA-2014 identifies Non HDL Cholesterol (an indicator of all atherogeniclipoproteins such as LDL, VLDL, IDL, Lpa, Chylomicron remnants) along with LDL-cholesterol as co- primary target for cholesterol lowering therapy. Note that major risk factors can modify treatment goals for LDL &Non

5. Additional testing for Apolipoprotein B, hsCRP,Lp(a) & LP-PLA2 should be considered among patients with moderate risk for ASCVD for risk refinement



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**CLIENT ADDRESS** : 6349/1, NICHOLSON ROAD, AMBALA CANTT

Unit **Test Name Value Biological Reference interval** 

# **ENDOCRINOLOGY**

#### THYROID FUNCTION TEST: FREE

FREE TRIIODOTHYRONINE (FT3): SERUM by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)	2.288	pg/mL	1.60 - 3.90
FREE THYROXINE (FT4): SERUM by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)	1.105	ng/dL	0.70 - 1.50
THYROID STIMULATING HORMONE (TSH): SERUM by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)	3.179	μIU/mL	0.35 - 5.50

#### 3rd GENERATION, ULTRASENSITIVE

#### INTERPREATION:

- 1. FT3 & FT4 are metabolic active form of thyroid harmones and correlate much better with clinical condition of the patient as compared to Total T4 levels. High FT3 & FT4 with normal TSH Levels and abnormal thyroid function (Total Thyroid) can occasionally be seen in cases of PERIPHERAL THYROID HARMONE RESISTANCE
- 2. TSH levels are subjected to circardian variation, reaching peak levels between 2-4 a.m and at a minimum between 6-10 pm. The variation is of the order of 50 %. Hence time of the day has influence on the measured serum TSH concentration.

### **INCREASED TSH LEVELS**

- 1. Primary hypothyroidism is accompanied by depressed serum FT3 & FT4 values and elevated serum TSH levels. Primary or untreated hypothyroidism may vary from 3 times to more than 100 times normal depending upon degree of hypofunction.
- 2. Hypothyroid patients receiving insufficient thyroid replacement therapy.
- 3. Hashimotos thyroiditis
- DRUGS: Amphetamines, idonie containing agents & dopamine antagonist.
   Neonatal period, increase in 1st 2-3 days of life due to post-natal surge

## **DECREASED TSH LEVELS:**

- Primary hyperthyroidism is accompanied by elevated serum FT3 & FT4 values along with depressed TSH levels.
   Toxic multi-nodular goitre & Thyroiditis.
   Over replacement of thyroid hormone in treatment of hypothyroidism.

- 3. Autonomously functioning Thyroid adenoma
- 4. Secondary pituatary or hypothalmic hypothyroidism
- 5. Acute psychiatric illness
- Severe dehydration.
   DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.
   Pregnancy: 1st Trimester

### NOTE:

1. High FT3 levels accompanied by normal FT4 levels and depressed TSH levels may be seen T3 thyrotoxicosis, central hypothyroidism occurs due to pituitary or thalamic malfunction

2. Secondary & Tertlary hypothyroidism, this relatively rare but important condition is indicated by presence of low serum FT3 and FT4 levels, in conjugation with TSH levels that are paradoxically either low/normal or are not elevated to levels that are expected.

\*\*\* End Of Report \*\*\*



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