Ordered Items: **TSH+T4F+T3Free; CBC With Differential/Platelet; Comp. Metabolic Panel (14); Lipid Panel With LDL/HDL Ratio; Vitamin B12 and Folate; Progesterone LCMS, Endo Sci; Hemoglobin A1c; DHEA-Sulfate; Estradiol; Testosterone, Total, LC/MS; Reverse T3, Serum; Vitamin D, 25-Hydroxy; C-Reactive Protein, Cardiac; Sedimentation Rate-Westergren; Thyroid Antibodies; Magnesium; Estrone, Serum; Ferritin; Venipuncture; Cardiovascular Report**

Date Collected: **10/05/2022** Date Received: **10/05/2022** Date Reported: **10/12/2022** Fasting: **Yes**

TSH+T4F+T3Free

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
	TSH [01]	1.700			uIU/mL	0.450-4.500
	Triiodothyronine (T3), Free [01]	3.1			pg/mL	2.0-4.4
	T4,Free(Direct) [01]	1.34			ng/dL	0.82-1.77

CBC With Differential/Platelet

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
	WBC [01]	8.9			x10E3/uL	3.4-10.8
▲	**RBC** [01]	**5.69**	**High**		x10E6/uL	3.77-5.28
	Hemoglobin [01]	14.4			g/dL	11.1-15.9
	Hematocrit [01]	45.6			%	34.0-46.6
	MCV [01]	80			fL	79-97
▼	**MCH** [01]	**25.3**	**Low**		pg	26.6-33.0
	MCHC [01]	31.6			g/dL	31.5-35.7
	RDW [01]	14.3			%	11.7-15.4
	Platelets [01]	273			x10E3/uL	150-450
	Neutrophils [01]	60			%	Not Estab.
	Lymphs [01]	29			%	Not Estab.
	Monocytes [01]	7			%	Not Estab.
	Eos [01]	2			%	Not Estab.
	Basos [01]	1			%	Not Estab.
	Neutrophils (Absolute) [01]	5.4			x10E3/uL	1.4-7.0
	Lymphs (Absolute) [01]	2.6			x10E3/uL	0.7-3.1
	Monocytes(Absolute) [01]	0.6			x10E3/uL	0.1-0.9
	Eos (Absolute) [01]	0.2			x10E3/uL	0.0-0.4
	Baso (Absolute) [01]	0.1			x10E3/uL	0.0-0.2
	Immature Granulocytes [01]	1			%	Not Estab.
	Immature Grans (Abs) [01]	0.0			x10E3/uL	0.0-0.1

Comp. Metabolic Panel (14)

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲	**Glucose** [01]	**104**	**High**	**Please note reference interval change**	mg/dL	70-99
	BUN [01]	14			mg/dL	6-24
	Creatinine [01]	0.70			mg/dL	0.57-1.00
	eGFR	105			mL/min/1.73	>59
	BUN/Creatinine Ratio	20				9-23

Comp. Metabolic Panel (14) (Cont.)

	Sodium [01]	138		mmol/L	134-144
	Potassium [01]	4.8		mmol/L	3.5-5.2
	Chloride [01]	100		mmol/L	96-106
	Carbon Dioxide, Total [01]	25		mmol/L	20-29
	Calcium [01]	9.9		mg/dL	8.7-10.2
	Protein, Total [01]	7.6		g/dL	6.0-8.5
	Albumin [01]	4.8		g/dL	3.8-4.9
	Globulin, Total	2.8		g/dL	1.5-4.5
	A/G Ratio	1.7			1.2-2.2
	Bilirubin, Total [01]	0.3		mg/dL	0.0-1.2
	Alkaline Phosphatase [01]	117		IU/L	44-121
	AST (SGOT) [01]	31		IU/L	0-40
▲	**ALT (SGPT)** [01]	**46**	**High**	IU/L	0-32

Lipid Panel With LDL/HDL Ratio

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲	**Cholesterol, Total** [01]	**230**	**High**		mg/dL	100-199
	Triglycerides [01]	98			mg/dL	0-149
	HDL Cholesterol [01]	50			mg/dL	>39
	VLDL Cholesterol Cal	17			mg/dL	5-40
▲	**LDL Chol Calc (NIH)**	**163**	**High**		mg/dL	0-99
▲	**LDL/HDL Ratio**	**3.3**	**High**		ratio	0.0-3.2

Please Note: [01]

LDL/HDL Ratio

	Men	Women
1/2 Avg.Risk	1.0	1.5
Avg.Risk	3.6	3.2
2X Avg.Risk	6.2	5.0
3X Avg.Risk	8.0	6.1

Vitamin B12 and Folate

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲	**Vitamin B12** [01]	**1268**	**High**		pg/mL	232-1245
	Folate (Folic Acid), Serum [01]	>20.0			ng/mL	>3.0

Note: [01]

A serum folate concentration of less than 3.1 ng/mL is considered to represent clinical deficiency.

Progesterone LCMS, Endo Sci

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Progesterone, Serum [02]	<10		ng/dL	

This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved by the Food and Drug Administration.
Reference Range:
Adult Females

Cycle Days	Range
1 - 6	<10 - 17

Progesterone LCMS, Endo Sci (Cont.)

```
  7 - 12        <10 - 135
 13 - 15        <10 - 1563
 16 - 28        <10 - 2555
Post Menopausal    <10
Note: Luteal progesterone peaked from 350 to 3750 ng/dL on
days ranging from 17 to 23.
```

Hemoglobin A1c

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ **Hemoglobin A1c** [01]	**6.0 High**		%	4.8-5.6
Please Note: [01]	Prediabetes: 5.7 - 6.4 Diabetes: >6.4 Glycemic control for adults with diabetes: <7.0			

DHEA-Sulfate

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
DHEA-Sulfate [01]	73.9		ug/dL	41.2-243.7

Estradiol

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Estradiol [01]	<5.0		pg/mL	
	Roche ECLIA methodology	Adult Female: Follicular phase 12.5 - 166.0 Ovulation phase 85.8 - 498.0 Luteal phase 43.8 - 211.0 Postmenopausal <6.0 - 54.7 Pregnancy 1st trimester 215.0 - >4300.0		

Testosterone, Total, LC/MS

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Testosterone, Total, LC/MS [02]	20		ng/dL	
	This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved by the Food and Drug Administration. Reference Range: Adult Females Premenopausal 10 - 55 Postmenopausal 7 - 40			

Reverse T3, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Reverse T3, Serum [A, 03]	18.1		ng/dL	9.2-24.1

Vitamin D, 25-Hydroxy

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Vitamin D, 25-Hydroxy [01]	35.3		ng/mL	30.0-100.0

Vitamin D, 25-Hydroxy (Cont.)

Vitamin D deficiency has been defined by the Institute of Medicine and an Endocrine Society practice guideline as a level of serum 25-OH vitamin D less than 20 ng/mL (1,2). The Endocrine Society went on to further define vitamin D insufficiency as a level between 21 and 29 ng/mL (2).

1. IOM (Institute of Medicine). 2010. Dietary reference intakes for calcium and D. Washington DC: The National Academies Press.
2. Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline. JCEM. 2011 Jul; 96(7):1911-30.

C-Reactive Protein, Cardiac

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ **C-Reactive Protein, Cardiac** [01]	**8.63** **High**		mg/L	0.00-3.00
	Relative Risk for Future Cardiovascular Event			
	Low			<1.00
	Average			1.00 - 3.00
	High			>3.00

Sedimentation Rate-Westergren

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Sedimentation Rate-Westergren [01]	19		mm/hr	0-40

Thyroid Antibodies

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Thyroid Peroxidase (TPO) Ab [01]	11		IU/mL	0-34
Thyroglobulin Antibody [01]	<1.0		IU/mL	0.0-0.9
	Thyroglobulin Antibody measured by Beckman Coulter Methodology			

Magnesium

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Magnesium [01]	2.0		mg/dL	1.6-2.3

Estrone, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Estrone, Serum [03]	21		pg/mL	
			Range	
		Adult (Premenopausal)	27 - 231	
		Menstrual Cycle (1-10 days)	19 - 149	
		Menstrual Cycle (11-20 days)	32 - 176	
		Menstrual Cycle (21-30 days)	37 - 200	
		Adult (Postmenopausal)	0 - 125	

Ferritin

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Ferritin [01]	53		ng/mL	15-150

Cardiovascular Report

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Interpretation [04]	Note Supplemental report is available.			
PDF [04]	.			

Disclaimer
The Previous Result is listed for the most recent test performed by Labcorp in the past 5 years where there is sufficient patient demographic data to match the result to the patient. Results from certain tests are excluded from the Previous Result display.

Icon Legend
▲ Out of Reference Range ■ Critical or Alert

Comments
A: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

Performing Labs
01: RN - Labcorp Raritan 69 First Avenue, Raritan, NJ, 08869-1800 Dir: Ashhad Mahmood, MD
02: ES - Esoterix Inc 4301 Lost Hills Road, Calabasas Hills, CA, 91301-5358 Dir: Brian Poirier, MD
03: BN - Labcorp Burlington 1447 York Court, Burlington, NC, 27215-3361 Dir: Sanjai Nagendra, MD
04: LITIL - Litholink Corporation 150 Spring Lake Dr Ste A, Itasca, IL, 60143-2091 Dir: Pawan Vohra, PhD
For Inquiries, the physician may contact Branch: 800-762-4344 Lab: 800-631-5250

Patient Details
Michalman, Marnee
26 E DERRY RD, DERRY, NH, 03038

Phone: **603-490-0546**
Date of Birth: **09/03/1971**
Age: **51**
Sex: **Female**
Patient ID: **142384**
Alternate Patient ID: **142384**

Physician Details
C CHOJNOWSK
PROFESSIONAL CO-OP SERVICES
2700 North 29th Ave, Suite 308, Hollywood, FL, 33020

Phone**: 866-999-4041**
Account Number: **09013070**
Physician ID: **NHND0090**
NPI:

Specimen Details
Specimen ID: **278-436-5248-0**
Control ID: **00428624**
Alternate Control Number: **00428624**
Date Collected: **10/05/2022 0801 Local**
Date Received: **10/05/2022 0000 ET**
Date Entered: **10/05/2022 1202 ET**
Date Reported: **10/12/2022 2106 ET**
Rte: **00**

Accessions: 27843652480

DISCLAIMER: *These assessments and treatment suggestions are provided as a convenience in support of the physician-patient relationship and are not intended to replace the physician's clinical judgment. They are derived from national guidelines in addition to other evidence and expert opinion. The clinician should consider this information within the context of clinical opinion and the individual patient.*
SEE GUIDANCE FOR CARDIOVASCULAR REPORT: Grundy SM et al. 2018 Multisociety guideline on the management of blood cholesterol: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. J Am Coll Cardiol 2019; 73: e285-350; Contois et al. Clin Chem 2009; 55(3):407-419; Brunzell et al. Diabetes Care 2008; 31(4):811-82.

Note: *Please refer to your LabCorp Report for all results as well as any test-specific and specimen-specific comments.*

Cardiovascular Report

Patient Assessment

Current available clinical information suggests the patient's risk is at least LOW. If the patient has two or more major risk factors, the risk category is intermediate. If the patient has CHD or a CHD risk equivalent, the risk category is high. If patient does not have CHD or a CHD risk equivalent, consider use of the Pooled Cohort Equations to estimate 10-year CVD risk, as individuals with greater than 7.5% risk may warrant more intensive therapy. The calculator can be found at: http://tools.cardiosource.org/ASCVD-Risk-Estimator/

High sensitivity CRP and Lp(a) results identify sources of residual risk that may warrant more intensive therapy. Hs-CRP result (8.63 mg/L) indicates increased risk for future cardiovascular events.

Insulin resistance, obesity, excessive alcohol use, smoking, nephrotic syndrome, liver disease, and certain medications can cause secondary dyslipidemia. Consider evaluation if clinically indicated.

Therapeutic lifestyle changes are always valuable to achieve optimal blood lipid status (diet, exercise, weight management).

Lipid Management

Select one patient risk category based upon medical history and clinical judgment. Additional risk factors such as personal or family history of premature CHD, smoking, and hypertension modify a patient's goals of therapy. In CVD prevention, the intensity of therapy should be adjusted to the level of patient risk. MODERATE intensity statin therapy generally results in an average LDL-C reduction of 30% to less than 50% from the untreated baseline. Examples include (daily doses): atorvastatin 10-20 mg, rosuvastatin 5-10 mg, simvastatin 20-40 mg, pravastatin 40-80 mg, lovastatin 40 mg. HIGH intensity statin therapy generally results in an average LDL-C reduction of 50% or more from the untreated baseline. Examples include (daily doses): atorvastatin 40-80 mg and rosuvastatin 20 mg.

▽ = PATIENT'S RESULT

ANALYTE / RESULT	**Patient Risk Category** (select one) **LOW**	**INTERMEDIATE**	**HIGH**
LDL-C **163 mg/dL**	▽ 160	▽ 100 130	▽ 70 100
non-HDL **180 mg/dL**	▽ 190	▽ 130 160	▽ 100 130
Lipid Assessment	LDL-C is high, was 133 and now is 163 mg/dL. Non-HDL Cholesterol is acceptable, was 145 and now is 180 mg/dL.	LDL-C is high, was 133 and now is 163 mg/dL. Non-HDL Cholesterol is borderline high, was 145 and now is 180 mg/dL.	LDL-C is high, was 133 and now is 163 mg/dL. Non-HDL Cholesterol is high, was 145 and now is 180 mg/dL.
Treatment Suggestions	Consider statin therapy as elevated LDL-C may contribute to increased CVD risk. If statin cannot be tolerated or increased, alternatives include use of an intestinal agent (ezetimibe or bile acid sequestrant) or niacin.	Begin statin. If statin already in use, consider increasing dose. If statin cannot be tolerated or increased, alternatives include use of an intestinal agent (ezetimibe or bile acid sequestrant) or niacin.	Begin statin. If statin already in use, consider increasing dose to achieve at least a 50% LDL reduction from baseline. Moderate or high intensity statin is preferred. If statin cannot be tolerated or increased, alternatives include use of an intestinal agent (ezetimibe or bile acid sequestrant) or niacin.

Patient Results Summary

Cholesterol comes in different forms and has varying effects on your heart health. Some cholesterol is "good" and not known to cause disease, this is HDL. The rest of cholesterol causes disease by clogging your arteries, this is non-HDL. LDL cholesterol is the largest component of the non-HDL cholesterol. Lowering your levels of "bad" cholesterol will lower your risk for disease.

- **LDL cholesterol (LDL-C)** is the largest component of the non-HDL cholesterol ("bad" cholesterol).
- **non-HDL** is composed of many different types of cholesterol (not just LDL-C) and high levels cause disease.

The level to which your LDL must be lowered depends on the risk for developing heart disease or having a heart attack. The higher your risk for heart disease, the lower your LDL goal.

Contributing Risk Factors For Heart Disease

☐ Heart and/or vascular disease	☐ Cigarette (tobacco) smoking
☐ High blood pressure	☐ Low HDL (men less than 40 mg/dL, women less than 50 mg/dL)
☐ Diabetes	☐ Family history of early onset heart disease
☐ Chronic kidney disease	☐ Man over 45 years or woman over 55 years
☐ Obesity	☐ Familial Hypercholesterolemia

Your Heart Disease Risk Category

Selected by your physician based upon your risk factors and clinical judgement.

Test / Your Results	☐ Low	☐ Intermediate	☐ High
LDL-C **163 mg/dL**	▽ 160	▽ 100 130	▽ 70 100
non-HDL **180 mg/dL**	▽ 190	▽ 130 160	▽ 100 130

▽ = Your Result: Left (Green) = Optimal, Center = Acceptable, Right (Red) = High Risk

Your Care Plan (as selected by your physician)

☐ Eat less trans fats and saturated fats, red meat, and sugary foods/drinks	☐ Control any other medical conditions: such as diabetes, high blood pressure
☐ Eat more vegetables, fruits, whole grains, low-fat dairy products, poultry, fish, and nuts	☐ Visit your doctor as scheduled and obtain all follow-up tests/treatments recommended
☐ Exercise	☐ Take all of your medications your doctor(s) have prescribed
☐ Lose weight	☐

Disclaimer: You should discuss this information with your physician. Labcorp does not have a doctor-patient relationship with you, nor does it have access to a complete medical history or physical examination conducted by a physician that would be necessary for a complete diagnosis and comprehensive treatment plan. Neither you nor your physician should rely solely on this guidance. Bolded result descriptions in "Comments" consider either the reference range or target range for the test result. Reference range refers to the Labcorp reference interval. Target range refers to the guideline-suggested goal. REFERENCES: National Kidney Foundation Kidney Disease Outcomes Quality Initiative (KDOQI) at www.kidney.org and Kidney Disease Improve Global Outcomes (KDIGO) at http://kdigo.org. Adapted from: https://www.niddk.nih.gov/-/media/Files/Health-Information/Health-Professionals/Kidney-Disease/Your_Kidney_Test_Results_EN.pdf