Quest Diagnostics

Report Status: Final

WARNER, MALCOLM

Patient Information	Specimen Information	Client Information
WARNER, MALCOLM **DOB: 08/18/1970 AGE: 51** Gender: M Fasting: Y Phone: 818.968.4044 Patient ID: 1921648 Health ID: 8573027684657227	Specimen: AZ129960B Requisition: 0001306 Lab Ref #: 1058773 Collected: 07/27/2022 / 08:27 EDT Received: 07/28/2022 / 09:24 EDT Reported: 08/03/2022 / 14:11 EDT	Client #: 10485914 QATL000 HANCOCK, MARK HUMANIZING MEDICINE 135 MAPLE ST BLDG A DECATUR, GA 30030-3953

COMMENTS: FASTING:YES

Test Name	In Range	Out Of Range	Reference Range	Lab
HS CRP	<0.3		mg/L	AT
Reference Range Optimal <1.0 Jellinger PS et al. Endocr Pract.2017;23(Suppl 2):1-87. For ages >17 Years: hs-CRP mg/L Risk According to AHA/CDC Guidelines <1.0 Lower relative cardiovascular risk. 1.0-3.0 Average relative cardiovascular risk. 3.1-10.0 Higher relative cardiovascular risk. Consider retesting in 1 to 2 weeks to exclude a benign transient elevation in the baseline CRP value secondary to infection or inflammation. >10.0 Persistent elevation, upon retesting, may be associated with infection and inflammation.				
COMPREHENSIVE METABOLIC PANEL				AT
GLUCOSE	81		65-99 mg/dL Fasting reference interval	
UREA NITROGEN (BUN)	12		7-25 mg/dL	
CREATININE	1.19		0.70-1.30 mg/dL	
EGFR	74		> OR = 60 mL/min/1.73m2	
The eGFR is based on the CKD-EPI 2021 equation. To calculate the new eGFR from a previous Creatinine or Cystatin C result, go to https://www.kidney.org/professionals/kdoqi/gfr%5Fcalculator				
BUN/CREATININE RATIO	NOT APPLICABLE		6-22 (calc)	
SODIUM	139		135-146 mmol/L	
POTASSIUM	4.2		3.5-5.3 mmol/L	
CHLORIDE	105		98-110 mmol/L	
CARBON DIOXIDE	29		20-32 mmol/L	
CALCIUM	9.7		8.6-10.3 mg/dL	
PROTEIN, TOTAL	6.6		6.1-8.1 g/dL	
ALBUMIN	4.5		3.6-5.1 g/dL	
GLOBULIN	2.1		1.9-3.7 g/dL (calc)	
ALBUMIN/GLOBULIN RATIO	2.1		1.0-2.5 (calc)	
BILIRUBIN, TOTAL	1.2		0.2-1.2 mg/dL	
ALKALINE PHOSPHATASE	42		35-144 U/L	
AST	17		10-35 U/L	
ALT	16		9-46 U/L	
HEMOGLOBIN A1c	5.4		<5.7 % of total Hgb	AT
For the purpose of screening for the presence of diabetes: <5.7% Consistent with the absence of diabetes 5.7-6.4% Consistent with increased risk for diabetes (prediabetes)				

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Test Name	In Range	Out Of Range	Reference Range	Lab
> or =6.5% Consistent with diabetes				
This assay result is consistent with a decreased risk of diabetes.				
Currently, no consensus exists regarding use of hemoglobin A1c for diagnosis of diabetes in children.				
According to American Diabetes Association (ADA) guidelines, hemoglobin A1c <7.0% represents optimal control in non-pregnant diabetic patients. Different metrics may apply to specific patient populations. Standards of Medical Care in Diabetes(ADA).				
TSH	0.90		0.40-4.50 mIU/L	AT
T4, FREE	0.9		0.8-1.8 ng/dL	AT
CBC (INCLUDES DIFF/PLT)				AT
WHITE BLOOD CELL COUNT	4.8		3.8-10.8 Thousand/uL	
RED BLOOD CELL COUNT	5.40		4.20-5.80 Million/uL	
HEMOGLOBIN	14.5		13.2-17.1 g/dL	
HEMATOCRIT	42.1		38.5-50.0 %	
MCV		**78.0 L**	80.0-100.0 fL	
MCH		**26.9 L**	27.0-33.0 pg	
MCHC	34.4		32.0-36.0 g/dL	
RDW	14.7		11.0-15.0 %	
PLATELET COUNT		**110 L**	140-400 Thousand/uL	
MPV	12.3		7.5-12.5 fL	
ABSOLUTE NEUTROPHILS	2678		1500-7800 cells/uL	
ABSOLUTE LYMPHOCYTES	1536		850-3900 cells/uL	
ABSOLUTE MONOCYTES	331		200-950 cells/uL	
ABSOLUTE EOSINOPHILS	202		15-500 cells/uL	
ABSOLUTE BASOPHILS	53		0-200 cells/uL	
NEUTROPHILS	55.8		%	
LYMPHOCYTES	32.0		%	
MONOCYTES	6.9		%	
EOSINOPHILS	4.2		%	
BASOPHILS	1.1		%	
CORTISOL, TOTAL	9.6		mcg/dL	AT
Reference Range: For 8 a.m.(7-9 a.m.) Specimen: 4.0-22.0 Reference Range: For 4 p.m.(3-5 p.m.) Specimen: 3.0-17.0 * Please interpret above results accordingly *				
INSULIN	3.0		uIU/mL	AT
Reference Range < or = 19.6 Risk: Optimal < or = 19.6 Moderate NA High >19.6 Adult cardiovascular event risk category cut points (optimal, moderate, high) are based on Quest Diagnostics population data from 12/2011.				
This insulin assay shows strong cross-reactivity for				

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Test Name	In Range	Out Of Range	Reference Range	Lab
some insulin analogs (lispro, aspart, and glargine) and much lower cross-reactivity with others (detemir, glulisine).				
PSA, TOTAL	1.49		< OR = 4.00 ng/mL	AT
The total PSA value from this assay system is standardized against the WHO standard. The test result will be approximately 20% lower when compared to the equimolar-standardized total PSA (Beckman Coulter). Comparison of serial PSA results should be interpreted with this fact in mind. This test was performed using the Siemens chemiluminescent method. Values obtained from different assay methods cannot be used interchangeably. PSA levels, regardless of value, should not be interpreted as absolute evidence of the presence or absence of disease.				

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Endocrinology

Test Name	Result	Reference Range	Lab
VITAMIN D, 1,25 DIHYDROXY			AMD
VITAMIN D, 1,25 (OH)2, TOTAL	37	18-72 pg/mL	
VITAMIN D3, 1,25 (OH)2	37	pg/mL	
VITAMIN D2, 1,25 (OH)2	<8	pg/mL	

Vitamin D3, 1,25(OH)2 indicates both endogenous production and supplementation. Vitamin D2, 1,25(OH)2 is an indicator of exogenous sources, such as diet or supplementation. Interpretation and therapy are based on measurement of Vitamin D,1,25(OH)2, Total.

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute, Chantilly, VA. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Physician Comments:

Immunology

Test Name	Result	Reference Range	Lab
ANA SCREEN, IFA, W/REFL TITER AND PATTERN			AT
ANA SCREEN, IFA	NEGATIVE	NEGATIVE	

ANA IFA is a first line screen for detecting the presence of up to approximately 150 autoantibodies in various autoimmune diseases. A negative ANA IFA result suggests an ANA-associated autoimmune disease is not present at this time, but is not definitive. If there is high clinical suspicion for Sjogren's syndrome, testing for anti-SS-A/Ro antibody should be considered. Anti-Jo-1 antibody should be considered for clinically suspected inflammatory myopathies.

AC-0: Negative

International Consensus on ANA Patterns (https://doi.org/10.1515/cclm-2018-0052)

For additional information, please refer to http://education.QuestDiagnostics.com/faq/FAQ177 (This link is being provided for informational/ educational purposes only.)

Physician Comments:

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Cardio IQ®

Test Name	Current Result & Risk: Optimal	Current Result & Risk: Non-Optimal	Risk/Reference Interval: Optimal	Moderate	High	Units	Historical Result & Risk
LIPID PANEL W/ TRIGLYCERIDES/HDL-C							
CHOLESTEROL, TOTAL		208	<200	N/A	>=200	mg/dL	
HDL CHOLESTEROL	66		>=40	N/A	<40	mg/dL	
TRIGLYCERIDES	52		<150	150-199	>=200	mg/dL	
LDL CHOLESTEROL		128	<100	100-129	>129	mg/dL (calc)	
CHOL/HDL C	3.2		<=3.5	3.6-5.0	>5.0	calc	
NON HDL CHOLESTEROL		142	<130	130-189	>=190	mg/dL (calc)	
TG/HDL C	0.8		<2.0	2.0-3.0	>3.0	calc	
LIPOPROTEIN FRACTIONATION NMR							
LDL P		1525	<935	935-1816	>1816	nmol/L	
SMALL LDL P	395		<467	467-820	>820	nmol/L	
LDL SIZE	21.3		>20.5	NA	<20.6	nm	
HDL P	38.1		>32.8	29.2-32.8	<29.2	umol/L	
LARGE HDL P		7.1	>7.2	5.3-7.2	<5.3	umol/L	
HDL SIZE		8.9	>9.0	8.7-9.0	<8.7	nm	
LARGE VLDL P	<1.5		<3.7	3.7-6.1	>6.1	nmol/L	
VLDL SIZE	43.9		<47.1	47.1-49.0	>49.0	nm	
APOLIPOPROTEINS							
APOLIPOPROTEIN B		98	<90	90-119	>=120	mg/dL	
LIPOPROTEIN (a)		75	<75	75-125	>125	nmol/L	

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Test Name	Current Result & Risk		Risk/Reference Interval				Historical Result & Risk
	Optimal	Non-Optimal	Optimal	Moderate	High	Units	
INFLAMMATION							
OxLDL	54		<60	60-69	>=70	U/L	

For details on reference ranges please refer to the reference range/comment section of the report.

4myheart Diet & Exercise Coaching Program: Need help achieving and maintaining an optimal weight? Managing stress? Trying to improve physical fitness levels? The 4myheart program provides support and personalized lifestyle guidance to help improve heart health. Please talk to your provider, visit 4myheart.com or call 1-800-432-7889 opt 2 to learn more.

Medical Information For Healthcare Providers: If you have questions about any of the tests in our Cardio IQ offering, please call Client Services at our Quest Diagnostics-Cleveland HeartLab Cardiometabolic Center of Excellence. They can be reached at 866.358.9828, option 1 to arrange a consult with our clinical education team.

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Reference Range/Comments

Analyte Name	In Range	Out Range	Reference Range	Lab
APOLIPOPROTEIN B		**98**	<90 mg/dL	Z4M
Risk: Optimal <90 mg/dL; Moderate 90-119 mg/dL; High >= 120 mg/dL; Cardiovascular event risk category cut points (optimal, moderate, high) are based on National Lipid Association recommendations- Jacobson TA et al. J of Clin Lipid. 2015; 9: 129-169 and Jellinger PS et al. Endocr Pract. 2017;23(Suppl 2):1-87.				
CHOLESTEROL, TOTAL		**208**	<200 mg/dL	Z4M
HDL SIZE		**8.9**	>9.0 nm	Z4M
Relative risk: Optimal >9.0; Moderate 8.7-9.0; High <8.7 nm. Reference range is 8.3-10.5 nm.				
LARGE HDL P		**7.1**	>7.2 umol/L	Z4M
Relative risk: Optimal >7.2; Moderate 5.3-7.2; High <5.3 umol/L. Reference range is >3.5 umol/L.				
LDL CHOLESTEROL		**128**	<100 mg/dL (calc)	Z4M
Desirable range <100 mg/dL for primary prevention; <70 mg/dL for patients with CHD or diabetic patients with >= 2 CHD risk factors. LDL-C is now calculated using the Martin-Hopkins calculation, which is a validated novel method providing better accuracy than the Friedewald equation in the estimation of LDL-C. Martin SS et al. JAMA. 2013;310(19): 2061-2068 (http://education.QuestDiagnostics.com/faq/FAQ164)				
LDL P		**1525**	<935 nmol/L	Z4M
Relative risk: Optimal <935; Moderate 935-1816; High >1816 nmol/L. Reference range is 592-2404 nmol/L. This test is performed by a Nuclear Magnetic Resonance method. This test was developed and its performance characteristics determined by The Cleveland HeartLab, Inc. It has not been cleared or approved by the U.S. FDA. The Cleveland HeartLab is regulated under Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research.				
LIPOPROTEIN (a)		**75**	<75 nmol/L	Z4M
Risk: Optimal <75 nmol/L; Moderate 75-125 nmol/L; High >125 nmol/L. Cardiovascular event risk category cut points (optimal, moderate, high) are based on Tsimika S. JACC 2017;69:692-711.				
NON HDL CHOLESTEROL		**142**	<130 mg/dL (calc)	Z4M
For patients with diabetes plus 1 major ASCVD risk factor, treating to a non-HDL-C goal of <100 mg/dL (LDL-C of <70 mg/dL) is considered a therapeutic option.				
CHOL/HDL C	**3.2**		<3.6 calc	Z4M
HDL CHOLESTEROL	**66**		>39 mg/dL	Z4M
HDL P	**38.1**		>32.8 umol/L	Z4M
Relative risk: Optimal >32.8; Moderate 29.2-32.8; High <29.2 umol/L. Reference range is 21.1-43.4 umol/L.				
LARGE VLDL P	**<1.5**		<3.7 nmol/L	Z4M
Relative risk: Optimal <3.7; Moderate 3.7-6.1; High >6.1 nmol/L. Reference range is <16.0 nmol/L.				
LDL SIZE	**21.3**		>20.5 nm	Z4M
Relative risk: Optimal >20.5; High <20.6 nm. Reference range is 20.0-22.3 nm.				
OxLDL	**54**		<60 U/L	Z4M
Based on a recent study of an 'apparently healthy' and non-metabolic syndrome population(1), the following cut-offs have been defined for OxLDL: A cut-off of <60 U/L defines a population with a low relative risk of developing metabolic syndrome, a range of 60 to 69 U/L defines a population with a moderate relative risk (2.8 fold) and >=70 U/L defines a population with a high relative risk (3.5-fold). (Reference: 1-Holvoet et al. JAMA. 2008; 299: 2287-2293.)				
SMALL LDL P	**395**		<467 nmol/L	Z4M
Relative risk: Optimal <467; Moderate 467-820; High >820 nmol/L. Reference range is <1408 nmol/L.				
TG/HDL C	**0.8**		<2.0 calc	Z4M
TRIGLYCERIDES	**52**		<150 mg/dL	Z4M
VLDL SIZE	**43.9**		<47.1 nm	Z4M
Relative risk: Optimal <47.1; Moderate 47.1-49.0; High >49.0 nm. Reference range is 41.1-61.7 nm.				

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PERFORMING SITE:

AMD QUEST DIAGNOSTICS/NICHOLS CHANTILLY, 14225 NEWBROOK DRIVE, CHANTILLY, VA 20151-2228 Laboratory Director: PATRICK W. MASON,MD,PHD, CLIA: 49D0221801
AT QUEST DIAGNOSTICS-ATLANTA, 1777 MONTREAL CIRCLE, TUCKER, GA 30084-6802 Laboratory Director: ANDREW N YOUNG,MD,PHD, CLIA: 11D0255931
Z4M CLEVELAND HEARTLAB INC, 6701 CARNEGIE AVENUE SUITE 500, CLEVELAND, OH 44103-4623 Laboratory Director: BILL G RICHENDOLLAR,MD, CLIA: 36D1032987

LIST OF RESULTS PRINTED IN THE OUT OF RANGE COLUMN:

CHOLESTEROL, TOTAL	**208 H**	<200 mg/dL	Z4M
LDL CHOLESTEROL	**128 H**	<100 mg/dL (calc)	Z4M

Desirable range <100 mg/dL for primary prevention; <70 mg/dL for patients with CHD or diabetic patients with >= 2 CHD risk factors. LDL-C is now calculated using the Martin-Hopkins calculation, which is a validated novel method providing better accuracy than the Friedewald equation in the estimation of LDL-C. Martin SS et al. JAMA. 2013;310(19): 2061-2068 (http://education.QuestDiagnostics.com/faq/FAQ164)

NON HDL CHOLESTEROL	**142 H**	<130 mg/dL (calc)	Z4M

For patients with diabetes plus 1 major ASCVD risk factor, treating to a non-HDL-C goal of <100 mg/dL (LDL-C of <70 mg/dL) is considered a therapeutic option.

LDL P	**1525 H**	<935 nmol/L	Z4M

Relative risk: Optimal <935; Moderate 935-1816; High >1816 nmol/L. Reference range is 592-2404 nmol/L. This test is performed by a Nuclear Magnetic Resonance method. This test was developed and its performance characteristics determined by The Cleveland HeartLab, Inc. It has not been cleared or approved by the U.S. FDA. The Cleveland HeartLab is regulated under Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research.

LARGE HDL P	**7.1 L**	>7.2 umol/L	Z4M

Relative risk: Optimal >7.2; Moderate 5.3-7.2; High <5.3 umol/L. Reference range is >3.5 umol/L.

HDL SIZE	**8.9 L**	>9.0 nm	Z4M

Relative risk: Optimal >9.0; Moderate 8.7-9.0; High <8.7 nm. Reference range is 8.3-10.5 nm.

APOLIPOPROTEIN B	**98 H**	<90 mg/dL	Z4M

Risk: Optimal <90 mg/dL; Moderate 90-119 mg/dL; High >= 120 mg/dL; Cardiovascular event risk category cut points (optimal, moderate, high) are based on National Lipid Association recommendations- Jacobson TA et al. J of Clin Lipid. 2015; 9: 129-169 and Jellinger PS et al. Endocr Pract. 2017;23(Suppl 2):1-87.

MCV	**78.0 L**	80.0-100.0 fL	AT
MCH	**26.9 L**	27.0-33.0 pg	AT
PLATELET COUNT	**110 L**	140-400 Thousand/uL	AT
LIPOPROTEIN (a)	**75 H**	<75 nmol/L	Z4M

Risk: Optimal <75 nmol/L; Moderate 75-125 nmol/L; High >125 nmol/L. Cardiovascular event risk category cut points (optimal, moderate, high) are based on Tsimika S. JACC 2017;69:692-711.