Quest Diagnostics

Report Status: Final

Patient Information	Specimen Information	Client Information
DOB: AGE: Gender: Phone: Patient ID:	Specimen: Requisition: Lab Ref #: Collected: Received: Reported:	

Test Name	In Range	Out Of Range	Reference Range	Lab
THYROID PANEL WITH TSH				
THYROID PANEL				
T3 UPTAKE	34		22-35 %	
T4 (THYROXINE), TOTAL	7.1		5.1-11.9 mcg/dL	
FREE T4 INDEX (T7)	2.4		1.4-3.8	
TSH	2.02		mIU/L	
			Reference Range	
			> or = 20 Years 0.40-4.50	
			Pregnancy Ranges	
			First trimester 0.26-2.66	
			Second trimester 0.55-2.73	
			Third trimester 0.43-2.91	
LIPID PANEL, STANDARD				
CHOLESTEROL, TOTAL	190		<200 mg/dL	
HDL CHOLESTEROL	57		>50 mg/dL	
TRIGLYCERIDES	87		<150 mg/dL	
LDL-CHOLESTEROL		**114 H**	mg/dL (calc)	
Reference range: <100				
Desirable range <100 mg/dL for primary prevention; <70 mg/dL for patients with CHD or diabetic patients with > or = 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)				
CHOL/HDLC RATIO	3.3		<5.0 (calc)	
NON HDL CHOLESTEROL		**133 H**	<130 mg/dL (calc)	
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.				
HS CRP		**11.0 H**	mg/L	
Persistent elevation, upon retesting, may be associated with infection and inflammation according to AHA/CDC guidelines.				
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.				

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>10.0 Persistent elevation, upon retesting, may be associated with infection and inflammation.				
COMPREHENSIVE METABOLIC PANEL				
GLUCOSE	95		65-99 mg/dL Fasting reference interval	
UREA NITROGEN (BUN)	10		7-25 mg/dL	
CREATININE	0.73		0.50-1.10 mg/dL	
eGFR NON-AFR. AMERICAN	97		> OR = 60 mL/min/1.73m2	
eGFR AFRICAN AMERICAN	112		> OR = 60 mL/min/1.73m2	
BUN/CREATININE RATIO	NOT APPLICABLE		6-22 (calc)	
SODIUM	139		135-146 mmol/L	
POTASSIUM	3.8		3.5-5.3 mmol/L	
CHLORIDE	104		98-110 mmol/L	
CARBON DIOXIDE	30		20-32 mmol/L	
CALCIUM	9.2		8.6-10.2 mg/dL	
PROTEIN, TOTAL	7.4		6.1-8.1 g/dL	
ALBUMIN	4.2		3.6-5.1 g/dL	
GLOBULIN	3.2		1.9-3.7 g/dL (calc)	
ALBUMIN/GLOBULIN RATIO	1.3		1.0-2.5 (calc)	
BILIRUBIN, TOTAL	0.5		0.2-1.2 mg/dL	
ALKALINE PHOSPHATASE	46		33-115 U/L	
AST	16		10-35 U/L	
ALT	25		6-29 U/L	
HEMOGLOBIN A1c		**5.9 H**	<5.7 % of total Hgb	
For someone without known diabetes, a hemoglobin A1c value between 5.7% and 6.4% is consistent with prediabetes and should be confirmed with a follow-up test. For someone with known diabetes, a value <7% indicates that their diabetes is well controlled. A1c targets should be individualized based on duration of diabetes, age, comorbid conditions, and other considerations. This assay result is consistent with an increased risk of diabetes. Currently, no consensus exists regarding use of hemoglobin A1c for diagnosis of diabetes for children.				
PHOSPHATE (AS PHOSPHORUS)	3.7		2.5-4.5 mg/dL	
URIC ACID	6.5		2.5-7.0 mg/dL	
Therapeutic target for gout patients: <6.0 mg/dL				
LD	100		100-200 U/L	
GGT	21		3-55 U/L	
CAROTENE	32		6-77 mcg/dL	
Vitamin supplementation within 24 hours prior to blood draw may affect the accuracy of the results.				

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VITAMIN A (RETINOL) 51 38-98 mcg/dL

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VITAMIN B6, PLASMA 21.6 2.1-21.7 ng/mL

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VITAMIN E (TOCOPHEROL)
ALPHA-TOCOPHEROL **20.5 H** 5.7-19.9 mg/L

Levels of alpha-tocopherol <5 mg/L are consistent with Vitamin E deficiency in adults.

BETA-GAMMA-TOCOPHEROL 1.1 <=4.3 mg/L

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VITAMIN B1 (THIAMINE),

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BLOOD, LC/MS/MS	105		78-185 nmol/L	

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CBC (INCLUDES DIFF/PLT)				
WHITE BLOOD CELL COUNT	7.3		3.8-10.8 Thousand/uL	
RED BLOOD CELL COUNT	4.61		3.80-5.10 Million/uL	
HEMOGLOBIN	12.4		11.7-15.5 g/dL	
HEMATOCRIT	37.7		35.0-45.0 %	
MCV	81.8		80.0-100.0 fL	
MCH		**26.9 L**	27.0-33.0 pg	
MCHC	32.9		32.0-36.0 g/dL	
RDW	13.0		11.0-15.0 %	
PLATELET COUNT	328		140-400 Thousand/uL	
MPV	9.2		7.5-12.5 fL	
ABSOLUTE NEUTROPHILS	3570		1500-7800 cells/uL	
ABSOLUTE LYMPHOCYTES	3059		850-3900 cells/uL	
ABSOLUTE MONOCYTES	438		200-950 cells/uL	
ABSOLUTE EOSINOPHILS	212		15-500 cells/uL	
ABSOLUTE BASOPHILS	22		0-200 cells/uL	
NEUTROPHILS	48.9		%	
LYMPHOCYTES	41.9		%	
MONOCYTES	6.0		%	
EOSINOPHILS	2.9		%	
BASOPHILS	0.3		%	
URINALYSIS, COMPLETE				
COLOR	YELLOW		YELLOW	
APPEARANCE		**TURBID**	CLEAR	
SPECIFIC GRAVITY	1.024		1.001-1.035	
PH	5.5		5.0-8.0	
GLUCOSE	NEGATIVE		NEGATIVE	
BILIRUBIN	NEGATIVE		NEGATIVE	
KETONES	NEGATIVE		NEGATIVE	
OCCULT BLOOD	NEGATIVE		NEGATIVE	
PROTEIN	NEGATIVE		NEGATIVE	
NITRITE	NEGATIVE		NEGATIVE	
LEUKOCYTE ESTERASE	NEGATIVE		NEGATIVE	
WBC	0-5		< OR = 5 /HPF	
RBC	0-2		< OR = 2 /HPF	
SQUAMOUS EPITHELIAL CELLS		**10-20**	< OR = 5 /HPF	
BACTERIA		**FEW**	NONE SEEN /HPF	
HYALINE CAST	NONE SEEN		NONE SEEN /LPF	
IRON, TOTAL	59		40-190 mcg/dL	
VITAMIN B12/FOLATE, SERUM PANEL				
VITAMIN B12	382		200-1100 pg/mL	

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Please Note: Although the reference range for vitamin B12 is 200-1100 pg/mL, it has been reported that between 5 and 10% of patients with values between 200 and 400 pg/mL may experience neuropsychiatric and hematologic abnormalities due to occult B12 deficiency; less than 1% of patients with values above 400 pg/mL will have symptoms.

FOLATE, SERUM 18.0 ng/mL

Reference Range	
Low:	<3.4
Borderline:	3.4-5.4
Normal:	>5.4

DHEA SULFATE 143 19-231 mcg/dL

DHEA-S values fall with advancing age.
For reference, the reference intervals for 31-40 year old patients are:

Male: 106-464 mcg/dL
Female: 23-266 mcg/dL

FSH 12.8 mIU/mL

Reference Range	
Follicular Phase	2.5-10.2
Mid-cycle Peak	3.1-17.7
Luteal Phase	1.5- 9.1
Postmenopausal	23.0-116.3

LH 12.3 mIU/mL

Reference Range	
Follicular Phase	1.9-12.5
Mid-Cycle Peak	8.7-76.3
Luteal Phase	0.5-16.9
Postmenopausal	10.0-54.7

CEA <0.5 ng/mL

Non-Smoker:	<2.5
Smoker:	<5.0

This test was performed using the Siemens chemiluminescent method. Values obtained from different assay methods cannot be used interchangeably. CEA levels, regardless of value, should not be interpreted as absolute evidence of the presence or absence of disease.

ESTRADIOL 36 pg/mL

Reference Range	
Follicular Phase:	19-144
Mid-Cycle:	64-357
Luteal Phase:	56-214
Postmenopausal:	< or = 31

Reference range established on post-pubertal patient

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population. No pre-pubertal reference range established using this assay. For any patients for whom low Estradiol levels are anticipated (e.g. males, pre-pubertal children and hypogonadal/post-menopausal females), the Quest Diagnostics Nichols Institute Estradiol, Ultrasensitive, LCMSMS assay is recommended (order code 30289). Please note: patients being treated with the drug fulvestrant (Faslodex(R)) have demonstrated significant interference in immunoassay methods for estradiol measurement. The cross reactivity could lead to falsely elevated estradiol test results leading to an inappropriate clinical assessment of estrogen status. Quest Diagnostics order code 30289-Estradiol, Ultrasensitive LC/MS/MS demonstrates negligible cross reactivity with fulvestrant.				
CA 19-9	16		<34 U/mL	
This test was performed using the Siemens chemiluminescent method. Values obtained from different assay methods cannot be used interchangeably. CA 19-9 levels, regardless of value, should not be interpreted as absolute evidence of the presence or absence of disease.				
CA 27.29	18		<38 U/mL	
This test was performed using the Siemens Chemiluminescent method. Values obtained from different assay methods cannot be used interchangeably. CA 27.29 levels, regardless of value, should not be interpreted as absolute evidence of the presence or absence of disease.				
TESTOSTERONE, FREE (DIALYSIS) AND TOTAL,MS TESTOSTERONE, TOTAL, MS	30		2-45 ng/dL	
For additional information, please refer to http://education.questdiagnostics.com/faq/TotalTestosteroneLCMSMSFAQ165 (This link is being provided for informational/educational purposes only.) 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 U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.				
TESTOSTERONE, FREE	5.8		0.1-6.4 pg/mL	
This test was developed and its analytical performance				

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VITAMIN C

VITAMIN C	0.9		0.3-2.7 mg/dL

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Endocrinology

Test Name	Result	Reference Range	Lab
VITAMIN D,25-OH,TOTAL,IA	11 L	30-100 ng/mL	

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Vitamin D Status          25-OH Vitamin D:

Deficiency:                     <20 ng/mL
Insufficiency:            20 - 29 ng/mL
Optimal:                  > or = 30 ng/mL
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For 25-OH Vitamin D testing on patients on D2-supplementation and patients for whom quantitation of D2 and D3 fractions is required, the QuestAssureD(TM) 25-OH VIT D, (D2,D3), LC/MS/MS is recommended: order code 92888 (patients >2yrs).

For more information on this test, go to: http://education.questdiagnostics.com/faq/FAQ163 (This link is being provided for informational/ educational purposes only.)

Physician Comments:

PERFORMING SITE: