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Alcala LABS
3703 Camino del Rio South 100-A
San Diego, CA, 92108
619-450-5870 - Phone
619-450-6023 - Fax
CLIA# 05D2027247 - Director: David J. Smith, MD

Patient :
Patient #:
Doctor:

Birth:
Age: 39 years
Gender: Male

Acc #: AL-BLD-11273
Collection Date: 04/04/2019 11:14
Received in Lab: 04/05/2019 11:14

BLOOD WELLNESS TESTING

Test Name	Result	Units	Flag	Reference Range
COMPLETE BLOOD COUNT (CBC)				
WBC	5.2	10(3)/mcL		4.1 - 10.9
LYM	2.7	10(3)/mcL		0.6 - 4.1
MID	1.00	10(3)/mcL		0.02 - 1.80
GRA	1.5	10(3)/mcL	**Low**	2.0 - 7.8
LYM%	51.1	%		10.0 - 58.5
MID%	19.2	%		0.1 - 24.0
GRA%	29.7	%	**Low**	37.0 - 92.0
RBC	5.1	10(6)/mcL		4.2 - 6.3
HGB	16.7	g/dL		12.0 - 18.0
HCT	50.3	%		37.0 - 51.0
MCV	98.1	fL	**High**	80.0 - 97.0
MCH	32.6	pg	**High**	26.0 - 32.0
MCHC	33.2	g/dL		31.0 - 36.0
RDW	13.0	%		11.5 - 14.5
PLT	219	10(3)/mcL		140 - 440
MPV	9.2	fL		0.0 - 49.9

WELLNESS SUBPANEL - BLOOD				
Cholesterol (Total)	173.0	mg/dL	**Low**	199.0 - 240.0
Triglycerides	163.0	mg/dL		1.0 - 200.0
HDL (High-Density Lipoprotein)	31.0	mg/dL	**Low**	40.0 - 60.0
Direct LDL(DLDL)	102.0	mg/dL		80.0 - 190.0
Folate	7.6	ng/mL		7.0 - 20.0
Insulin	3.4	uU/mL		1.0 - 300.0
Lactate Dehydrogenase (LDH)	138.0	U/L		125.0 - 243.0
Testosterone	385.93	ng/dL		47.00 - 980.00
Free Triiodothyronine (FT3)	3.7	pg/mL		1.7 - 5.1
Total Triiodothyronine (TT3)	1.2	ng/mL		0.8 - 2.0
Free Thyroxine (FT4)	1.1	ng/dL		0.7 - 1.5
Total Thyroxine (TT4)	7.3	mcg/dL		4.5 - 12.5
Thyroid Stimulating Hormone (TSH)	1.8115	uIU/mL		0.4000 - 64.0000
T-Uptake	36.1	%		27.0 - 37.0
Ferritin	177.10	ng/mL		20.00 - 500.00
Vitamin B12	265.0	pg/mL		200.0 - 915.0

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COMPLETE METABOLIC PANEL				
Albumin BCP	4.1	g/dL		3.4 - 6.0
Calculated Globulin (CG)	2.4	g/dL		1.9 - 3.7
A/G Ratio	1.7			1.0 - 2.5
Alkaline Phosphatase	76.0	U/L		55.0 - 135.0
Alanine Aminotransferase (ALT)	16.0	U/L		7.0 - 55.0
Aspartate Aminotransferase (AST)	16.0	U/L		8.0 - 48.0
Bilirubin (Total)	0.500	mg/dL		0.200 - 1.200
Calcium	9.2	mg/dL		8.4 - 10.2
Chloride	105.0	mmol/L		98.0 - 113.0
Potassium	4.1	mmol/L		3.5 - 5.1
Sodium	138.0	mmol/L		136.0 - 145.0
Creatinine	0.92	mg/dL		0.70 - 1.30
Carbon Dioxide (CO2)	23.0	mEq/L		22.0 - 29.0
Blood Glucose	162	mg/dL	**High**	70 - 105
Total Protein	6.5	g/dL		4.4 - 8.0
Urea (BUN) - Blood Urea Nitrogen	15.0	mg/dL		8.9 - 20.6
BUN/Creatinine Ratio (BCR)	16			6 - 22
eGFR calculated (Male)	105	mL/min/1.73m2		60 - 120
AA eGFR calculated (Male)	122	mL/min/1.73m2	**High**	60 - 120

Comments:

This test was performed at Alcala Testing and Analysis Services (CLIA# 05D2027247).

PLEASE NOTE:

URINE WELLNESS TESTING (Urine VITAMINS): ATAS provides clients with a BROWN (LIGHT-PROTECTED) URINE CUP - Specimens provided with less than 5 mL of Urine and/or in CLEAR CUPS will be REJECTED.

BLOOD WELLNESS TESTING (Venipuncture WHOLE BLOOD and SERUM): ATAS provides clients with a Serum Separator Tube (SST) for serum collections and a 4 mL EDTA/Lavender tube for whole blood collections.
Order of draw is Serum (SST tube) then collect whole blood with the EDTA/Lavender tube. While all EDTA/Lavender tubes are optimized to contain 1.5 mg EDTA/ ml of whole blood, the **minimum whole blood volume** to draw suggested by the vendor (BD) is at least a 90% draw volume - that is a **minimum of 3.6 mL whole blood per 4 mL EDTA/Lavender tube**. Whole blood specimens drawn with less volume may clot and be rejected if clots are observed in the tube.

Anti-coagulated samples are required for many of the laboratory tests that are performed on a daily basis to assess and monitor patients. When these samples clot, they must be rejected and have to be recollected. Results are delayed, in turn delaying timely treatment of patients.

What causes clotted specimens? The top three causes of clotted samples are:
1. Leaving blood in a syringe too long before placing in tubes - syringes have no anticoagulant in them. When blood is drawn from a vein or a line, coagulation begins almost immediately.

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2. Delay of placing blood in tubes such as with a slow draw using a syringe. Hemostasis begins during the draw and will continue after the blood is transferred to a tube. **Removing the clot is prohibited**; it will not stop hemostasis and will affect results.
3. Improper mixing of anti-coagulated tubes (primarily lavender and blue top tubes). The anticoagulant in the lavender tube is sprayed onto the inside of the tube while the blue top tube has a liquid anticoagulant. The **tubes need to be inverted at least 10 times to make sure that the anticoagulant is properly mixed** with the blood components to stop the entire clotting mechanism. A slow draw into a vacutainer tube should be mixed intermittently until filled to prevent hemostasis.

Notes:

Reviewed By: _____ **Date:** **04/08/2019 19:49**