INTERIM REPORT
02/09/2024
15:51

INTERMOUNTAIN LABORATORIES - OUT PATIENT LABORATORIES
389 South 900 East, Salt Lake City, UT 84102

MILLER,NATALIYA Z
DOB: 02201982 41Y F
Home Phone #: (801)961-1138

Hosp #: 647504310
Bill #: 1266159055

SL Clinic Phleb 1
Dr: UNAVAILABLE,PHYSICIAN,MD

F5250596 COLL: 02/02/2024 17:45 REC: 02/02/2024 18:19 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/07/24 at 1341 JC

MISCELLANEOUS TEST
Name of test MERCURY URINE RANDOM ARUP 2011481 {OP}
Result: See Comments {OP}
(NOTE)

Copy to clipboard

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Jonathan R. Genzen, MD, PhD, Chief Medical Officer

Patient Report |FINAL

Patient:	MILLER, NATALIYA Z
DOB:	2/20/1982
Sex:	Female
Patient Identifiers:	1ARUP0015855638, 647504310
Visit Number (FIN):	QDG11XCMJ89MEPY
Collection Date:	2/2/2024 5:45:00 PM
PHYSICIAN:	MACK, SONJA

Mercury, Random Urine
ARUP test code 2011481

Creatinine, Urine - per volume
174 mg/dL

- -

Mercury, Urine - per volume
<2.5 ug/L (Ref Interval: 0.0-5.0)
INTERPRETIVE INFORMATION: Mercury, Urine

Urinary mercury levels predominantly reflect acute or chronic elemental or inorganic mercury exposure. Urine concentrations in unexposed individuals are typically less than 10 ug/L. 24 hour urine concentrations of 30 to 100 ug/L may be associated with subclinical neuropsychiatric symptoms and tremors. Concentrations greater than 100 ug/L can be associated with overt neuropsychiatric disturbances and tremors. Urine mercury levels may be useful in monitoring chelation therapy.

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MISCELLANEOUS TEST (CONTINUED)
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- -

Mercury, Urine - ratio to CRT
Not Applicable ug/g CRT (Ref Interval: 0.0-20.0)

Unable to accurately calculate the creatinine normalized result due to a low per volume result.

==========

Performing Lab	Test performed at ARUP Laboratory			{OP}
Source	Urine			{OP}

F5250579 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:14 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/04/24 at 1055 MW

Vitamin B12	H 1583	[345-1485]	pg/mL	{O

COMPREHENSIVE METABOLIC PANEL

Sodium	139	[137-146]	mmol/L	{OP}
Potassium	4.2	[3.5-5.0]	mmol/L	{OP}
Chloride	107	[102-111]	mmol/L	{OP}
CO2	24	[19-30]	mmol/L	{OP}
Anion Gap (Na Cl CO2)	8	[3-16]	mmol/L	{OP}
Glucose	H 105	[65-99]	mg/dL	{O
BUN	16	[8-20]	mg/dL	{OP}
Creatinine	0.87	[0.60-1.10]	mg/dL	{OP}
Creatinine GFR	86	[>60]	mL/min/1.73 sq m	{OP}
Calcium	8.9	[8.4-10.4]	mg/dL	{OP}
Protein, Total	6.9	[6.0-8.4]	g/dL	{OP}
Albumin	4.3	[3.5-5.2]	g/dL	{OP}
Bilirubin, Total	0.4	[0.2-1.3]	mg/dL	{OP}

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COMPREHENSIVE METABOLIC PANEL (CONTINUED)				
Alkaline Phosphatase	42	[40-120]	U/L	{OP}
ALT (SGPT)	27	[0-40]	U/L	{OP}
AST (SGOT)	28	[9-40]	U/L	{OP}
Comment:	See Comments (NOTE)			{OP}

INTERPRETATION OF ESTIMATED GFR:
Estimated using CKD-EPI 2021 equation
(https://www.kidney.org/professionals/kdoqi/gfr_calculator)
Chronic Kidney Disease less than 60 mL/min/1.73 sq m
Kidney failure less than 15 mL/min/1.73 sq m

Ferritin	80	[10-200]	ng/mL	{OP}
Free T4	0.95	[0.74-1.46]	ng/dL	{OP}
Total T3	L 62	[80-200]	ng/dL	{I
Free T3	Request Credited Order error			
CBC				
WBC	6.9	[3.6-10.6]	K/uL	{OP}
RBC	4.41	[4.20-5.40]	M/uL	{OP}
Hemoglobin	12.9	[12.0-16.0]	g/dL	{OP}
Hematocrit	37.8	[36.0-46.0]	%	{OP}
MCV	85.7	[80.0-100.0]	fL	{OP}
MCH	29.3	[26.0-34.0]	pg	{OP}
MCHC	34.1	[32.0-36.0]	g/dL	{OP}
RDW SD	40.1	[36.7-47.2]	fL	{OP}
RDW	12.9	[11.3-15.6]	%	{OP}
Platelets	279	[150-400]	K/uL	{OP}
MPV	10.6	[8.6-12.4]	fL	{OP}
Nucleated RBCs Automated	0.0		/100 WBCs	{OP}
DIFFERENTIAL				
Differential type	Auto			{OP}
Neutrophils	51.1		%	{OP}
Lymphocytes	41.8		%	{OP}
Monocytes	4.4		%	{OP}
Eosinophils	2.0		%	{OP}
Basophils	0.6		%	{OP}
Immature Granulocytes	0.1	[0.0-0.5]	%	{OP}

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DIFFERENTIAL (CONTINUED)				
Neutrophils, Absolute	3.5	[1.8-6.8]	K/uL	{OP}
Lymphs, Absolute	2.9	[1.2-3.4]	K/uL	{OP}
Monocytes, Absolute	0.3	[0.2-0.9]	K/uL	{OP}
Eosinophils, Abs Count	0.1	[0.0-0.5]	K/uL	{OP}
Basophils, Absolute	0.0	[0.0-0.1]	K/uL	{OP}
Immature Granulocyte, Absolute	0.01	[0.00-0.04]	K/uL	{OP}
Mercury, Whole Blood	H 12.6			{AR}

Reference range: <=10.0
Unit: ug/L
(NOTE)

INTERPRETIVE INFORMATION: Mercury, Blood
Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of blood mercury, confirmation with a second specimen collected in a certified metal-free tube is recommended. Blood mercury levels predominantly reflect recent exposure and are most useful in the diagnosis of acute poisoning as blood mercury concentrations rise sharply and fall quickly over several days after ingestion. Blood concentrations in unexposed individuals rarely exceed 20 ug/L. The provided reference interval relates to inorganic mercury concentrations. Dietary and non-occupational exposure to organic mercury forms may contribute to an elevated total mercury result. Clinical presentation after toxic exposure to organic mercury may include dysarthria, ataxia and constricted vision fields with mercury blood concentrations from 20 to 50 ug/L.
This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.
Performed By: ARUP Laboratories
500 Chipeta Way
Salt Lake City, UT 84108
Laboratory Director: Jonathan R. Genzen, MD, PhD
CLIA Number: 46D0523979

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Bill #: 1266159055
Home Phone #: (801)961-1138 Dr: UNAVAILABLE,PHYSICIAN,MD

F5250605 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:16 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/06/24 at 2153 RT

TESTOSTERONE, FEMALES/CHILDREN,BIO & SHBG

Testosterone	12		{AR}
	Reference range: 9 to 55		
	Unit: ng/dL		
	(NOTE)		

REFERENCE INTERVAL: Testosterone by Mass Spec
Females
Premenopausal 9-55 ng/dL
Postmenopausal 5-32 ng/dL
INTERPRETIVE INFORMATION: Testosterone by Mass Spec
Free or bioavailable testosterone measurements may provide supportive information.
For individuals on testosterone-suppressing hormone therapies (e.g., antiandrogens or estrogens), refer to cisgender female reference intervals. For a complete set of all established reference intervals, refer to ltd.aruplab.com/Tests/Pub/0081058.
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Sex Hormone Binding Globulin	H 145		{AR}
	Reference range: 25 to 122		
	Unit: nmol/L		
	(NOTE)		

REFERENCE INTERVAL: Sex Hormone Binding Globulin
Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory (aruplab.com).

Testosterone, Free	L 0.7		{AR}
	Reference range: 1.1 to 5.8		
	Unit: pg/mL		
	(NOTE)		

REFERENCE INTERVAL: Testosterone, Free by Mass Spec
Females
Postmenopausal: 0.6 - 3.8 pg/mL
INTERPRETIVE INFORMATION: Testosterone, Free by Mass Spec
Free testosterone concentration is calculated using total testosterone (measured by mass spectrometry) and the binding constant of testosterone and sex hormone-binding globulin (SHBG).
For individuals on testosterone-suppressing hormone therapies (e.g., antiandrogens or estrogens), refer to cisgender female reference intervals. For a complete set of all established

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F5250605 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:16 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/06/24 at 2153 RT

TESTOSTERONE, FEMALES/CHILDREN,BIO & SHBG (CONTINUED)
reference intervals, refer to ltd.aruplab.com/Tests/Pub/0081059.
This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.
Performed By: ARUP Laboratories
500 Chipeta Way
Salt Lake City, UT 84108
Laboratory Director: Jonathan R. Genzen, MD, PhD
CLIA Number: 46D0523979

Testosterone, Bioavailable L 1.9 {AR}
Reference range: 2.8 to 16.5
Unit: ng/dL
(NOTE)
REFERENCE INTERVAL: Testosterone, Bioavailable by Mass Spec
Females:
Postmenopausal: 1.5 - 9.4 ng/dL
INTERPRETIVE INFORMATION: Testosterone, Bioavailable by Mass Spec
Bioavailable testosterone concentration is calculated using total testosterone (measured by mass spectrometry) and the binding constant of testosterone and sex hormone-binding globulin (SHBG) and/or albumin.
For individuals on testosterone-suppressing hormone therapies (e.g., antiandrogens or estrogens), refer to cisgender female reference intervals. For a complete set of all established reference intervals, refer to ltd.aruplab.com/Tests/Pub/0081057.

Comment Specimens from males <14 years of age and ALL females are referred to a reference lab for an improved test methodology (LCMS). {OP}

F5250648 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:16 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/04/24 at 1056 JK

CRP (C-Reactive Protein) <0.1 [0.0-1.5] mg/dL {OP}
This test is NOT to be used for cardiovascular risk assessment. Order separate hsCRP assay.

FOLLICLE STIMULATING HORMONE

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FOLLICLE STIMULATING HORMONE	(CONTINUED)		
Follicle-Stimulating Hormone	7.8	mIU/mL	{OP}
FSH Comment	See Comments (NOTE)		{OP}

INTERPRETATION OF ADULT FEMALE FSH (mIU/mL):

Follicular Phase	3.0-8.1
Mid-Cycle Peak	2.6-16.7
Luteal Phase	1.4-5.5
Post-menopausal	26.7-133.4

LUTEINIZING HORMONE (LH)			
Luteinizing Hormone (LH)	2.2	mU/mL	{OP}
LH Comment	See Comments (NOTE)		{OP}

INTERPRETATION OF ADULT FEMALE LH (mIU/mL):

Follicular	1.8-11.8
Mid-Cycle Peak	7.6-89.1
Luteal	0.6-14.0
Post-menopausal	5.2-62.0

Source: Abbott Assay Information Sheet 12/10

PROGESTERONE			
Progesterone	0.2	ng/mL	{IM}
Comments:	See Comments (NOTE)		{IM}

INTERPRETATION OF PROGESTERONE:
Reference Ranges:

Adult Male:	<0.2 ng/mL
Normal Menstruating Female:	
Follicular	<=0.2 ng/mL
Ovulation	<=4.1 ng/mL
Luteal	4.1-14.5* ng/mL
Postmenopausal Female:	<0.2 ng/mL
Pregnant Female:	
First Trimester	11.0-44.3 ng/mL
Second Trimester	25.4-83.4 ng/mL
Third Trimester	58.7.0-214.0 ng/mL

* Luteal phase represents the central 90% interval of all values.

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PROLACTIN

Prolactin	11.9	[4.8-23.3]	ng/mL	{IM}
PROL Comment	See Comments (NOTE)			{IM}

INTERPRETATION OF PROLACTIN:
Supplementary Reference Ranges (ng/mL):

Tanner Stage	Males	Females
1	<10.1	3.6-12.0
2-3	<6.1	2.6-18.0
4-5	2.8-11.0	3.2-20.0
Third Trimester		95-473

THYROID STIMULATING HORMONE

Thyroid Stimulating Hormone	3.84	[0.27-4.20]	uIU/mL	{IM}
	This is a 3rd generation TSH assay.			

VITAMIN D, 25-HYDROXY

Vitamin D, 25-Hydroxy	50	[30-80]	ng/mL	{IM}
Comment:	See Comments (NOTE)			{IM}

INTERPRETATION OF 25-HYDROXY VITAMIN D
Reference Intervals:
Deficiency : <=20 ng/mL
Insufficiency : 21-29 ng/mL
Optimum Level : 30-80 ng/mL
Possible Toxicity : >80 ng/mL
This assay accurately quantifies the sum of vitamin D3,
25-Hydroxy and vitamin D2, 25-Hydroxy.

F5250649 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:18 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/04/24 at 0827 KG

Homocysteine	7	[0-15]	umol/L	{IM}

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F5250659 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:18 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/04/24 at 0837 KG

ESTRADIOL

Estradiol	<25		pg/mL	{IM}
ESTRAD Comment	See Comments (NOTE)			{IM}

INTERPRETATION OF ESTRADIOL TESTING (pg/mL):
Adult
Female Postmenopause:

Follicular	30.9-90.4
Ovulaltion	60.4-533.0
Luteal	60.4-232.0

Pregnant Women

Follicular	154.0 - 3243.0
Ovulaltion	1561.0 - 21280.0
Luteal	8525.0 - >30000.0

Result may be falsely elevated by fulvestrant (Faslodex).
Estradiol in patients receiving this medication should be measured by mass spectrometry. Order code ESTMCA, Estradiol, by tandem mass spectrometry for these patients as well as for Males, Children and Postmenopausal Women.

Testing performed on Roche Cobas Methodology.

F5250708 COLL: 02/02/2024 18:00 REC: 02/02/2024 18:17 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 858-657-1818 on 02/04/24 at 0837 KG

DHEA Sulfate, Serum	128	[61-337]	ug/dL	{IM}

{AR} = Performed at ARUP Laboratories, Salt Lake City, Utah
{IM} = Performed at Intermountain Central Laboratory, Murray, Utah
{OP} = Performed at Salt Lake Clinic, Salt Lake City, Utah

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Home Phone #: (801)961-1138

Hosp #: 647504310
Bill #: 1266226207

SL Clinic Phleb 1
Dr: UNAVAILABLE,PHYSICIAN,MD

T6704809 COLL: 02/06/2024 10:53 REC: 02/06/2024 11:14 PHYS: UNAVAILABLE,PHYSICIAN,MD

Faxed to 888-539-8781 on 02/07/24 at 1115 LP

Iron, Total Serum	121	[37-145]	ug/dL	{OP}
LIPID PROFILE				
Patient Fasting?	Yes 16 h			{OP}
Cholesterol, Total	191	[147-199]	mg/dL	{OP}
Triglycerides	80	[45-149]	mg/dL	{OP}
HDL Cholesterol	65	[40-96]	mg/dL	{OP}
Non-HDL Cholesterol	126	[<130]	mg/dL	{OP}
VLDL Cholesterol (Calc.)	16	[9-29]	mg/dL	{OP}
LDL Cholesterol (Calc.)	H 110	[<100]	mg/dL	{O
Total Cholesterol:HDL Ratio	2.9	[<4.5]		{OP}
LDL Comment	See Comments (NOTE)			{OP}

INTERPRETIVE INFORMATION: LDL Cholesterol
The Intermountain Primary Care Clinical Program recommends that
for most patients without known atherosclerosis or
risk-equivalents, use "Pooled Cohort Equation" recommendations:
http://tools.acc.org/ASCVD-Risk-Estimator/
For most patients with known coronary artery disease,
atherosclerosis, diabetes mellitus, or LDL >190, target LDL <70.
(See "Intermountain Cardiovascular Risk and Cholesterol
Guideline.")

{OP} = Performed at Salt Lake Clinic, Salt Lake City, Utah