Adrenal Hormone Report; saliva

Order: SAMPLE REPORT
Client #: 12345
Doctor: Sample Doctor, MD
Doctors Data Inc.
3755 Illinois Ave.
St. Charles, IL 60174

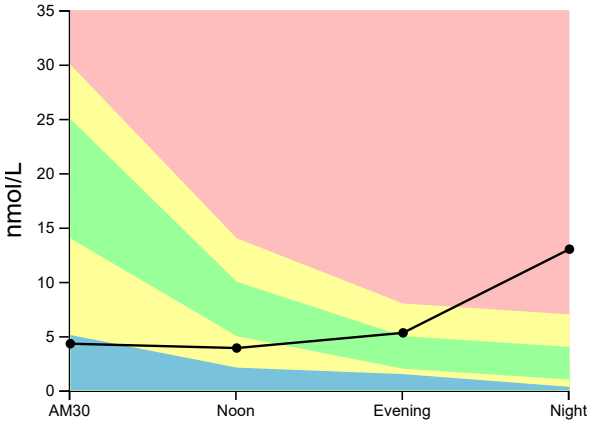
Patient: Sample Report
Age: 33
Sex: Female
Body Mass Index (BMI): N/A

Menopausal Status: Pre-Menopausal

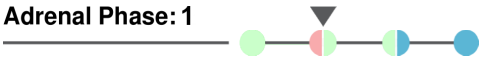
Sample Collection	Date/Time
Date Collected	10/01/2018
AM30	10/01/2018 0800
Noon	10/01/2018 1200
Evening	10/01/2018 1700
Night	10/01/2018 2100
Date Received	10/03/2018
Date Reported	10/05/2018

Analyte	Result	Unit	L	WRI	H	Optimal Range	Reference Interval
Cortisol AM30	4.3	nmol/L	↓			14.0 - 25.0	5.1 - 30.0
Cortisol Noon	3.9	nmol/L		◇		5.0 - 10.0	2.1 - 14.0
Cortisol Evening	5.3	nmol/L			◇	2.0 - 5.0	1.5 - 8.0
Cortisol Night	13	nmol/L			↑	1.0 - 4.0	0.33 - 7.0
DHEA*	89	pg/mL	↓				106 - 300

Cortisol Graph



Adrenal Phase: 1



Hormone Comments:

- The elevated night cortisol level and diurnal pattern are consistent with hypothalamic pituitary axis (HPA) dysregulation (Phase 1), although cortisol or glucocorticoid derivative supplementation cannot be excluded. Query use of steroidal inhalers or topical creams. High night cortisol levels are associated with low melatonin levels.
- DHEA level is consistent with the expected decline with age (adrenopause). The low DHEA level may warrant supplementation for optimal well-being. Note: Supplementation with DHEA may increase testosterone and/or estradiol levels.

Notes:
RI= Reference Interval, L (blue)= Low (below RI), WRI (green)= Within RI (optimal), WRI (yellow)= Within RI (not optimal), H (red)= High (above RI)
The current samples are routinely held three weeks from receipt for additional testing.

*This test was developed and its performance characteristics determined by Doctor's Data, Inc. The FDA has not approved or cleared this test; however, FDA clearance or approval is not currently required for clinical use. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions.

Methodology: Enzyme Immunoassay

Hormone Report; saliva

Order: SAMPLE REPORT
Client #: 12345
Doctor: Sample Doctor, MD
Doctors Data Inc.
3755 Illinois Ave.
St. Charles, IL 60174

Patient: Sample Report
Age: 33
Sex: Female
Body Mass Index (BMI): N/A

Menopausal Status: Pre-Menopausal

Sample Collection	Date/Time
Date Collected	10/01/2018
AM30	10/01/2018 0800
Noon	10/01/2018 1200
Evening	10/01/2018 1700
Night	10/01/2018 2100
Date Received	10/03/2018
Date Reported	10/05/2018

Analyte	Result	Unit	L	WRI	H	Reference Interval	Supplementation Range**
Estrone (E1)*	20.0	pg/mL		◆		< 45	
Estradiol (E2)	1.9	pg/mL		◆		0.5 - 5.0	1.5 - 7.2
Estriol (E3)*	17.9	pg/mL		◆		< 66	67 - 708
EQ (E3 / (E1 + E2)) Ratio	0.80		↓			> 1.0	
Progesterone (Pg)	36	pg/mL	↓			127 - 446	500 - 3000
Pg/E2 Ratio	18.9		↓			200 - 600	
Testosterone	25	pg/mL		◆		6.0 - 49	30 - 60
DHEA*	89	pg/mL	↓			106 - 300	

Hormone Comments:

- Estrone, estradiol and estriol are within the reference ranges, however the Estrogen Quotient (EQ) is low. Estriol is less potent than the other estrogens and when present in sufficient quantities (as indicated by an optimal EQ) it plays an antagonistic role, and may govern the proliferative effects of estrone and estradiol. Estriol supplementation is a consideration to balance this quotient and reduce associated risks.
- Progesterone to estradiol (Pg/E2) ratio and reported symptoms are consistent with progesterone insufficiency (estrogen dominance). Supplementation with topical progesterone to correct this relative deficiency is a consideration. Note: The progesterone level is suggestive of an anovulatory cycle, luteal phase failure or collection outside of luteal phase.
- DHEA level is consistent with the expected decline with age (adrenopause). The low DHEA level may warrant supplementation for optimal well-being. Note: Supplementation with DHEA may increase testosterone and/or estradiol levels.

Notes:
RI= Reference Interval, L (blue)= Low (below RI), WRI (green)= Within RI (optimal), WRI (yellow)= Within RI (not optimal), H (red)= High (above RI)
The current samples are routinely held three weeks from receipt for additional testing.

The Pg/E2 ratio is an optimal range established based on clinical observation. Progesterone supplementation is generally required to achieve this level in men and postmenopausal women.

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**If supplementation is reported then the supplementation ranges will be graphed. The supplementation ranges depicted are for informational purposes only and were derived from a cohort of adult men and women utilizing physiologic transdermal bioidentical hormone therapy.

Methodology: Enzyme Immunoassay

Neuro Basic Profile; urine

Order: 999999-9999
Client #: 12345
Doctor: Sample Doctor, MD
Doctor's Data, Inc.
3755 Illinois Ave.
St. Charles, IL 60174

Patient: Sample Report
Age: 33
Sex: Female
Body Mass Index (BMI): N/A
Menopausal Status: Pre-Menopausal

Sample Collection	Date/Time
Date Collected	10/01/2018
Wake Up Time	0557
Collection Time	First morning
Collection Period	10/03/2018
Date Received	10/05/2018
Date Reported	

Analyte	Result	Unit per Creatinine	L	WRI	H	Reference Interval
Serotonin	55	µg/g				60 - 125
Dopamine	155	µg/g				125 - 250
Norepinephrine	14	µg/g				22 - 50
Epinephrine	8.5	µg/g				1.6 - 8.3
Norepinephrine / Epinephrine ratio	1.6					< 13
Glutamate	5.2	nmol/g				12.0 - 45.0
Gamma-aminobutyrate (GABA)	2.8	nmol/g				2.0 - 5.6
Glycine	640	nmol/g				450 - 2200
Histamine	68	µg/g				14 - 44
Phenethylamine (PEA)	80	nmol/g				32 - 84
Creatinine	125	mg/dL				30 - 225

Neurotransmitter Comments:

- Urinary neurotransmitter levels provide an overall assessment of the body's ability to make and break down neurotransmitters and are representative of whole body levels. They are required for neurotransmission throughout the body. Direct assessment of neurotransmitter levels and metabolism in the central nervous system is not clinically feasible and approximately twenty percent of the total urinary levels are derived from the brain. The enzymes, cofactors and precursors in neurotransmitter metabolism in general are the same in the periphery and in the central nervous system. Therefore, alterations in urinary neurotransmitter levels assessed in urine provide important clinical information, and may be associated with many symptoms including cognitive and mood concerns, diminished drive, fatigue and sleep difficulties, cravings, addictions and pain.
- Low serotonin may contribute to mood concerns including anxiety, OCD, depression, anger and a sense of discontentment. Low serotonin may also be associated with poor sleep quality and appetite changes, as well as chronic fatigue, rheumatoid arthritis, and over-all lassitude. Failure to regenerate tetrahydrobiopterin [BH4], an essential cofactor for serotonin synthesis, may decrease serotonin levels, and could be reflected in urine. BH4 regeneration may be supported by folates, vitamin B3, C, molybdenum and zinc. Additionally, production of serotonin requires vitamin D, iron and vitamin B6. Tryptophan is the essential precursor of serotonin. 5-HTP may increase serotonin, and L-theanine may affect serotonin function.
- Low norepinephrine may be associated with depression and mood changes as well as fatigue, difficulty concentrating, decreased ability to stay focused on tasks and diminished sense of personal/professional drive. Norepinephrine is converted from dopamine requiring vitamin C, copper and B3, and L-tyrosine is an amino acid precursor. L-theanine and Mucuna pruriens may modulate norepinephrine effects.
- Elevated epinephrine may be associated with stress response and contributory to anxiety, agitation, irritability, insomnia and hypertension. Epinephrine levels may be elevated in patients in association with exercise prior to the urine collection. Metabolism of epinephrine requires vitamins B2, B3, SAMe, magnesium, and iron. L-theanine may modulate epinephrine effects.
- Low glutamate may be associated with depression, increased addictive tendencies including food seeking behaviors, and can contribute to mental fatigue and diminished mental stimulation. L-glutamine is a precursor amino acid.
- Elevated histamine may be associated with allergy-like symptoms, gastro-intestinal concerns, skin itch/inflammation (pruritis), increased wakefulness and insomnia, and has been demonstrated in gastrointestinal blastocystis infections. Levels may be elevated due to use of histamine-releasing medications, consumption of allergenic and sulfite-rich foods and/or histamine-rich foods, dysbiotic bacterial production in the intestine and zinc deficiency. High urine (and blood) histamine levels have been associated with cluster and cyclic headaches. Break down of histamine requires SAMe and copper.
- Considerations to address the demonstrated imbalances beyond the identified co-factors and amino acid precursors may include dosage adjustments if indicated, as well as nervine and adaptogenic herbs, methylation support, vitamin D, and gastrointestinal health optimization.

Notes:
Results are creatinine corrected to account for urine dilution variations. Creatinine is not meant to be used as an indicator of renal function.
RI= Reference Interval, L (blue)= Low (below RI), WRI (green)= Within RI (optimal), WRI (yellow)= Within RI (not optimal), H (red)= High (above RI)
Methodology: LCMS QQQ,Creatinine by Jaffe Reaction

Analyzed by DOCTOR'S DATA, INC. • 3755 Illinois Avenue, St. Charles, IL 60174-2420 USA • LAB DIR: Erlo Roth, MD • CLIA ID: 14D0646470