Adrenal Hormone Report; saliva

LABRIX

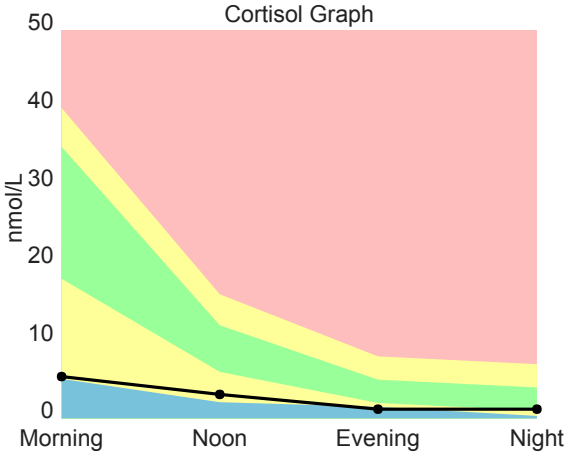
Order: SAMPLE REPORT
Client #: 12345
Doctor: John Smith, MD
Doctors Data Inc
3755 Illinois Ave
St. Charles, 60175 IL

Patient: Sample Patient
Age: 43 **DOB:** 01/01/1974
Sex: Female

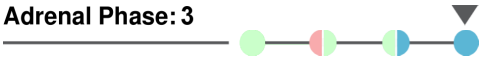
Menopausal Status: Pre-Menopausal

Sample Collection	Date/Time
Date Collected	01/01/2017
Morning	01/01/2017 0800
Noon	01/01/2017 1200
Evening	01/01/2017 1700
Night	01/01/2017 2100
Wake Up Time	01/01/2017 0800
Date Received	01/04/2017
Date Reported	01/06/2017

Analyte	Result	Unit	L	WR	H	Optimal Range	Reference Interval
Cortisol Morning	5.4	nmol/L		◆		18 - 35	5.1 - 40
Cortisol Noon	3.1	nmol/L		◆		6.0 - 12	2.1 - 16
Cortisol Evening	1.2	nmol/L	↓			2.0 - 5.0	1.5 - 8.0
Cortisol Night	1.2	nmol/L		◆		1.0 - 4.0	0.33 - 7.0
DHEA*	62	pg/mL	↓				106 - 300



Adrenal Phase: 3



Hormone Comments:

- The suboptimal diurnal cortisol pattern and reported symptoms are consistent with established (Phase 3) HPA axis (adrenal gland) dysfunction.
- 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:
L (blue)= Low (below range), WR (green)= Within Range (optimal), WR (yellow)= Within Range (not optimal) H (red)= High (above range)

*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

LABRIX

Order: SAMPLE REPORT
Client #: 12345
Doctor: John Smith, MD
Doctors Data Inc
3755 Illinois Ave
St. Charles, 60175 IL

Patient: Sample Patient
Age: 43 **DOB:** 01/01/1974
Sex: Female

Menopausal Status: Pre-Menopausal

Sample Collection	Date/Time
Date Collected	01/01/2017
Morning	01/01/2017 0800
Noon	01/01/2017 1200
Evening	01/01/2017 1700
Night	01/01/2017 2100
Wake Up Time	01/01/2017 0800
Date Received	01/04/2017
Date Reported	01/06/2017

Analyte	Result	Unit	L	WR	H	Reference Interval	Supplementation Range**
Estradiol (E2)	2.4	pg/mL		◆		0.5 - 5.0	1.5 - 7.2
Progesterone (Pg)	45	pg/mL	↓			127 - 446	500 - 3000
Pg/E2 Ratio	18.6		↓			200 - 600	
Testosterone	16	pg/mL		◆		6.0 - 49	30 - 60
DHEA*	62	pg/mL	↓			106 - 300	

Hormone Comments:

- 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. Query BCP usage.
- 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:
L (blue)= Low (below range), WR (green)= Within Range (optimal), WR (yellow)= Within Range (not optimal) H (red)= High (above range)

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.

*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.

**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

Neurotransmitter Report; urine

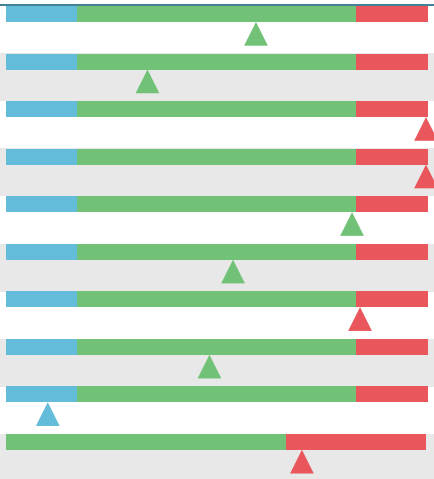
Order: SAMPLE REPORT
Client #: 12345
Doctor: John Smith, MD
Doctors Data Inc
3755 Illinois Ave
St. Charles, 60175 IL

Patient: Sample Patient
Age: 43 **DOB:** 01/01/1974
Sex: Female

Menopausal Status: Pre-Menopausal

Sample Collection	Date/Time
Date Collected	01/01/2017
Morning	01/01/2017 0800
Noon	01/01/2017 1200
Evening	01/01/2017 1700
Night	01/01/2017 2100
Wake Up Time	0800
Date Received	01/04/2017
Date Reported	01/06/2017

Analyte	Result	Unit per Creatinine	L WR H	Reference Interval
Serotonin	110.82	µg/g		52 - 155
Gamma-aminobutyrate (GABA)	2.02	nmol/g		1.6 - 8
Dopamine	470.25	µg/g		95 - 275
Norepinephrine	131.46	µg/g		15 - 78
Epinephrine	10.94	µg/g		1 - 11.1
Glutamate	25.30	nmol/g		10 - 52
Glycine	3600	nmol/g		350 - 3500
Histamine	22.15	µg/g		12 - 66
Phenethylamine (PEA)	11.9	nmol/g		20 - 176
Norepinephrine / Epinephrine ratio	12.02			< 11
Creatinine	139.18	mg/dL		



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.
- Elevated dopamine may be associated with increased worry, distrust of others and decreased ability to interact socially and is often found in patients with attention deficits and hyperactivity. Medications that may increase dopamine levels include L-dopa, methyldopa, select antidepressants and some ADD/ADHD medications. L-theanine may modulate catecholamine effects. Metabolism requires vitamins B2, B3, SAMe, magnesium, and iron, while conversion to norepinephrine requires vitamin C, copper and vitamin B3.
- Elevated norepinephrine and upper range epinephrine may be associated with stress response and contributory to anxiety, agitation, irritability, insomnia and lack of mental focus. Metabolism of catecholamines requires vitamins B2, B3, SAMe and iron while conversion to epinephrine requires adequate cortisol and SAMe. L-theanine may modulate elevated catecholamines. Some antidepressant medications may influence norepinephrine levels.
- Elevated glycine levels may be associated with diminished intellectual functioning and adaptive behavior. Elevated levels may be seen with glycine supplementation, often used in conjunction with pharmaceutical agents when supporting schizophrenia or psychosis. Lipoic acid may enhance glycine break down. Break down of glycine requires vitamin B6 and tetrahydrofolate as cofactors. Note: High levels of glycine may interact with clozapine and decrease its clinical efficacy.
- Low phenethylamine (PEA) may be associated with depression, attention deficits and hyperactivity (ADHD), Parkinson's disease and bipolar disorder. Phenylalanine is the precursor amino acid to PEA, and vitamin B6 is a required co-factor in the conversion to this primary trace amine. Use of Reserpine can result in depletion of PEA.
- Elevated N/E ratio is consistent with poor conversion of norepinephrine to epinephrine. This conversion is driven by the phenylethanolamine N-methyltransferase (PNMT) enzyme that requires SAMe, magnesium and cortisol (adequate HPA axis function) as cofactors. Suggest interpretation in context of cortisol levels/HPA axis function, with subsequent optimization of HPA axis function when clinically warranted.
- 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:
L (blue)= Low (below range), WR (green)= Within Range (optimal), WR (yellow)= Within Range (not optimal) H (red)= High (above range)
Methodology: LCMS QQQ,Creatinine by Jaffe Reaction