

Laboratory Tests in Gender-Affirming Hormone Treatment (GAHT)

Estrogen & Anti-Androgens

- Treatment goal: Suppress testosterone while increasing estradiol levels
- Frequency: 1, 3-, 6-, 12 months, and annual
- Hormone Monitoring: Total Testosterone, SHBG* + Albumin, Estradiol
- Kidney Function Tests***: BUN**/Creatinine/Potassium
- Patient Preparation: No fasting is required but ideally collected between 0800-1200****

VA



U.S. Department of Veterans Affairs
Veterans Health Administration
Oklahoma City VA Health Care System

Other laboratory tests may be done if clinically indicated.

**SHBG- Sex-Hormone Binding Globulin

*BUN-Blood Urea Nitrogen

***Kidney Function tests performed if patients are on spironolactone

****Testosterone's diurnal variation are highest from 0800 to noon

Baseline

- Hormone Monitoring
- Kidney Function Test

3 and 6 months from Start of GAHT-Estrogen

- Hormone Monitoring
- Kidney Function Test

12 months from Start of GAHT-Estrogen

- Kidney Function Test
- Total Testosterone
- SHBG + Albumin

Annual Check

- Kidney Function Test

Laboratory Tests in GAHT-Estrogen

- Total Testosterone: Decreasing Total Testosterone over time.
 - » Goal: < 55 ng/mL
- Estradiol: Measured in blood for estrogen.
 - » Monitor increase in Estradiol levels in the blood
 - » Goal: 200-500 pmol/L, should not exceed 700 pmol/L
- High estradiol with low testosterone would be ideal to achieve the feminizing effects of estrogen.
- If results do not achieve the ideal effect, other lab tests are performed to adjust doses and to determine why testosterone is not suppressed.
- Sex-Hormone Binding Globulin (SHBG): determines how much available testosterone is in your blood but does not determine how much of it is used. High SHBG could indicate non-suppressed testosterone.
- Creatinine/Potassium (K)- Patients in spironolactone are checked for renal tests. High Potassium or hyperkalemia can potentially cause cardiac arrhythmia.
- Liver enzymes (ALT): ALT is a liver enzyme that can be tested for any harmful impact on the liver. High ALT could potentially mean liver damage.

- Gender-affirming care is a life-saving treatment.
- Successful gender-affirming care including GAHT improves the overall well-being of patients with gender dysphoria.
- Laboratory tests are needed to ensure the hormone treatment goal is achieved.
- To ensure the success of treatment, be able to have your blood drawn on the timeline noted, or as needed by the provider.

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References

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