TSH with Reflex to FT4

CPT Code: 84443

Order Code: C513

For patients 1 year of age or older, Free T4 will be performed at an additional charge (CPT code 84439) when TSH result exceeds age specific reference range.

ABN Requirement: No
Synonyms: Thyroid Stimulating Hormone with Reflex
Specimen: Serum
Volume: 1.0 mL
Minimum Volume: 0.7 mL
Container: Gel-barrier tube (SST)

Collection:

1. Collect and label sample according to standard protocols.
2. Gently invert tube 5 times immediately after draw. Do not shake.
3. Allow blood to clot 30 minutes.
4. Centrifuge for 10 minutes.

Special Instructions: Specimen collection after fluorescein dye angiography should be delayed for at least 3 days. For patients on hemodialysis, specimen collection should be delayed for 2 weeks. According to the assay manufacturer Siemens: “Samples containing fluorescein can produce falsely depressed values when tested with the Advia Centaur TSH3 Ultra assay.”

Transport: Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions included with the provided shipping box.

Stability:

Ambient (15-25°C): 7 days
Refrigerated (2-8°C): 7 days
Frozen (-20°C): 28 days

Causes of Rejection: Specimens other than serum; improper labeling; samples

not stored properly; samples older than stability limits

Methodology: Immunoassay (IA)

Turn Around Time: 1 to 3 days

Reference Range:

Thyroid Stimulating Hormone (TSH): See individual test

Thyroxine (T4), Free: See individual test

Clinical Significance: This test may be useful in assessing thyroid dysfunction when pituitary disease is not suspected. In patients with clinical suspicion of hyperthyroidism or hypothyroidism, testing thyroid stimulating hormone (TSH) is the initial step [1]. An abnormal TSH result will reflex to a free thyroxine (T4) test to aid in diagnosis and guide further testing if needed.

TSH stimulates the thyroid gland to synthesize and secrete triiodothyronine (T3) and T4. TSH production is reduced in response to high T3/T4 levels and increased in response to low T3/T4 levels. When pituitary disease is not suspected, TSH serves as a sensitive marker for screening for thyroid dysfunction [1,2]. A normal TSH result excludes most cases of primary overt thyroid disease. When the TSH level is elevated, measurement of free T4 level may help diagnose subclinical or overt hypothyroidism. Thyroid peroxidase antibody testing may be needed to aid in the diagnosis of Hashimoto thyroiditis. When the TSH level is decreased, measurement of free T4 and free T3 may help identify hyperthyroidism or T3 thyrotoxicosis. In patients with thyrotoxicosis, TSH receptor antibodies testing helps confirm Graves disease [1-3].

Note: Interference due to heterophile antibodies has been known to occur [1].

The results of this test should be interpreted in the context of pertinent clinical and family history and physical examination findings.

References:

1. Demers LM, et al. The thyroid: pathophysiology and thyroid function testing. In: Burtis CA, et al. eds. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. 4th ed. Elsevier; 2006:2053-2095.

2. Ross DS, et al. Thyroid. 2016;26(10):1343-1421.

3. Vasileiou M, et al; Guideline Committee. BMJ. 2020;368:m41.

The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.