

Memo to: Healthcare Personnel
From: Alverno Clinical Laboratories, Anatomic Pathology Department
Subject: **Test Change November 25, 2008– Thyroid Autoantibody Profile**

We are pleased to announce an updated service for our healthcare providers, Thyroid Autoantibody testing.

The detection of antibodies to Thyroglobulin (Anti-Tg) is used to diagnose and monitor autoimmune thyroid diseases such as Graves' Disease and Hashimoto's Thyroiditis. Thyroglobulin is produced by and used by the thyroid gland to generate the thyroid hormones T3 and T4. Anti-Tg is also used to identify potentially unreliable serum Tg measurements in patients with thyroid carcinomas; this test utilizes an EIA methodology.

Thyroperoxidase (TPO) is an enzyme that binds Iodine to thyroglobulin to form the building blocks of thyroid hormones T3 and T4. The detection of antibodies against TPO (anti-TPO) can occur in autoimmune thyroid disease. Historically, this test was referred to as the microsomal antibody test. It is now known that TPO is the principal microsomal antigen against which antibodies are directed. We will cease performing the microsomal antibody test and replace it with TPO antibody testing on November 25, 2008.

This profile will replace our thyroid antibody group test, which was composed of microsomal antibody and thyroglobulin antibody. The new Thyroid Autoantibody Profile contains anti-TPO (which replaces the microsomal antibody) and thyroglobulin antibody by EIA. Both anti-TPO and thyroglobulin antibody can be ordered as individual tests; please note that microsomal antibody will no longer be available.

**Please note – previous thyroid antibody group test was reported as a titer; anti-TPO and thyroglobulin antibody will now be reported in IU/mL. Baselineing of patients using the new unit may be needed for serial monitoring.

These tests are FDA approved and manufactured by Roche.

SPECIMEN COLLECTION

Specimen sources:

TPO - 1 ml serum preferred, also Li,- Na, -NH₄-heparin,K₃-EDTA, sodium citrate and sodium fluoride/potassium oxalate plasma.

Anti-Tg - 1 ml serum preferred, also Na,-heparin, or EDTA plasma

Specimen stability: 3 days refrigerated, 1 month frozen

Unacceptable Conditions: Hemolyzed or Lipemic.

Soft order code:

TPOAB for the Thyroperoxidase antibody (a new code)

TYHEM for the Anti-Tg (same as previous code)

THYRP for the panel including TPO and Anti-Tg (a new code)