

Information for Clinicians

Biochemistry & Immunology Departments

Thyroid Antibody Testing

Amendment History

Issue	Status	Date	Reason for Change	Authorised
V1.0	Approved	May 2024	New Guideline	Moya O'Doherty

Thyroid Peroxidase Antibodies (TPO)

TPO antibodies are found in 90% of patients with autoimmune hypothyroidism (Hashimoto's disease), they are also present in 10% of people without thyroid disease.

We recommend **TPO measurement only under limited** scenarios:

- **Risk of hypothyroidism in pregnancy (or pre-conception)**
- **Children with subclinical or overt thyroid disease**
- **Complex endocrinology patients**

The presence/absence of TPO antibodies plays no role in determining thyroxine replacement in hypothyroidism or in non-pregnant adults presenting with borderline TFT abnormalities, clinicians should be guided by TSH/FT4 levels and symptoms.

Measurement of TPO antibodies was previously encouraged where TSH was mildly elevated (5 - 10 mIU/L) to determine the TSH monitoring frequency (1-3 years). We now recommend that all patients with subclinical hypothyroidism (asymptomatic with elevated TSH <10 mIU/L and normal FT4) have annual thyroid function checked without testing TPO.

TSH Receptor Antibodies (TRABs)

TRABs are found in 95% of patients with autoimmune hyperthyroidism (Graves' disease) and <2% of people without thyroid disease. TRAB antibodies have a specific role in distinguishing between Graves' and other causes of hyperthyroidism e.g. transient thyroiditis, toxic nodular disease.

We recommend **TRAB measurement only under limited** scenarios:

- **New presentation of hyperthyroidism** (often added by the laboratory)
- **Pregnant women with a history of Graves'** (under antenatal endocrinology)
- **Considering stopping anti-thyroid drugs** (under endocrinology)

- For **radioactive iodine**, and determining need for steroids (under endocrinology)

Requests for TPO and/or TRAB analysis will not routinely be processed outside the clinical scenarios provided above. Specific cases may be discussed with the Duty Clinical Biochemist, available Mon-Fri 9am-5pm 01225 824050 (x4050)