



Summary of NICE Guidelines

Title	Thyroid disease: assessment and management
NICE Reference	NG145
Date of Review:	November 2019
Date of Publication:	January 2020
Summary of Guidance (Max 250 words)	<p>Consider measuring TFTs in patients with:</p> <ul style="list-style-type: none">• Clinical suspicion of thyroid disease with more than one symptom• Autoimmune conditions (e.g. type 1 diabetes, etc.)• New onset atrial fibrillation• Depression or unexplained anxiety• Abnormal growth in children and young people (i.e. <18 years of age) <p>Do <u>not</u> measure TFTs in:</p> <ul style="list-style-type: none">• Acutely ill patients (unless there is strong clinical suspicion of thyroid disease)• Solely on the basis of a diagnosis of type 2 diabetes <p><u>Diagnosis</u></p> <p>In suspected primary thyroid dysfunction in adults:</p> <ul style="list-style-type: none">• Measure TSH alone as a screen• Measure FT₄ if TSH is above the reference range• Measure FT₄ and FT₃ if TSH is below the reference range <p>In suspected secondary thyroid dysfunction in adults:</p> <ul style="list-style-type: none">• Measure both TSH and FT₄ <p>In children and young people:</p> <ul style="list-style-type: none">• Measure both TSH and FT₄ <p>Do <u>not</u> repeat TFTs within six weeks, as it is unlikely they will provide new information.</p> <p><u>Monitoring</u></p> <p>In adults with primary hypothyroidism started on thyroxine, measure TSH every three months until TSH drops to within the reference range, and then once a year. TSH can take up to six months to normalise after thyroxine treatment has started.</p> <p>Consider measuring FT₄, in addition to TSH, in adults who continue to have symptoms after starting thyroxine.</p> <p>In untreated subclinical hypothyroidism, measure TSH and FT₄ once a year in patients with an underlying thyroid disease, and every 2-3 years in patients without an underlying thyroid disease.</p>

	<p>In adults with asymptomatic subclinical hyperthyroidism, measure TSH every six months.</p> <p>Children on thyroxine, or with subclinical thyroid dysfunction, require more regular monitoring.</p>
Impact on Lab (See below)	<p>■ Moderate</p>
<p>Lab professionals to be made aware</p> <p><i>Please select/highlight appropriate choices</i></p>	<ul style="list-style-type: none"> ✓ Chemical Pathologists ✓ Clinical Scientists ✓ Biomedical Scientists
<p>Please detail the impact of this guideline (Max 150 words)</p>	<p>This guideline is aimed mainly towards the assessment and management of suspected thyroid disease, but this summary has focused on the laboratory investigations for diagnosis and monitoring.</p> <p>One of the most significant recommendations in this guideline is measuring only TSH as an initial screen in adults with suspected primary thyroid disease. This recommendation would be cost effective for the NHS expenditure on TFTs, which is currently estimated to be £30 million per year. However, this guideline recognises that FT₄ should also be part of the screen in adults with suspected secondary (pituitary) thyroid disease, and in all children and young people, as TSH is more likely to be misleadingly normal in these groups.</p> <p>Other recommendations, including not measuring TFTs in acutely ill patients, and not repeating TFTs within six weeks, also aim to reduce total TFT expenditure whilst also helping to avoid misleading results inappropriately influencing patient management.</p>

Impact on Lab

- **None:** This NICE guideline has no impact on the provision of laboratory services
- **Moderate:** This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
- **Important:** This NICE guideline is of direct relevance to our pathology service and will have a direct impact on one or more of the services that we currently offer.

Written by: Mr Kade Flowers

Reviewed by: Dr Mahtab Sharifi (Consultant Chemical Pathologist), Wendy Armstrong (Consultant Clinical Scientist)