

TOP TIPS FOR THE MANAGEMENT OF PATIENTS WITH THYROID DYSFUNCTION

Sub-clinical Hypothyroidism

- Biochemically defined as TSH between upper normal range (at RGHT: 5.5 mIU/L) and 10 mIU/L with normal free T4
- majority of patients will be asymptomatic (hence the term: subclinical)
- if **TPO titre is normal** and **TSH less than 10** no treatment indicated and **monitor** thyroid function test **every 3 years** or earlier if clinically indicated
- if **TPO titre is raised** and **TSH less than 10** and patient asymptomatic, no treatment indicated and **monitor** thyroid function test **yearly**
- thyroxine replacement indicated if repeat TSH > 10 mIU/L regardless of TPO status
- once committed to thyroxine replacement, aim for TSH between lower normal range (at RGHT 0.38 mIU/L) and 2.5 mIU/L
- in majority of cases no referral to secondary care required

Subclinical hypothyroidism in women who want to conceive

- Always initiate replacement with thyroxine and aim for TSH < 2.5 mIU/L ideally prior to conception
- Refer to antenatal thyroid clinic once pregnant and consider increasing thyroxine by 25% once pregnancy confirmed (e.g in the first trimester)

Subclinical hypothyroidism in patients who have received radioactive iodine treatment (patients usually followed up in secondary care)

- Always initiate treatment as patients will proceed to develop frank hypothyroidism

Replacement of thyroxine

- In younger patients (e.g < 40 years old) and no underlying cardiovascular disease: start with levothyroxine 100 mcg od and titrate according to TSH every **2-3 months**. There is no need to check FT4.
- In elderly patients and any patients with underlying cardiovascular disease start with a low dose of Levothyroxine (12.5 mcg od – 25 mcg od) and titrate up every 4-6 weeks
- To optimize absorption advise patient to take thyroxine on an empty stomach with a glass of water ideally 1-2 hours before any other medication and food (if on ferrous sulphate or calcium supplementation leave at least a gap of 4-6 hours)
- Please note that TSH changes very gradually and hence there is no benefit in monitoring TSH too frequently (not more than every 8 weeks)
- As a guide thyroxine requirements range from 1.2-1.7 mcg/kg.

Subclinical hyperthyroidism

- Defined as TSH below the lower normal range (LNR at RGHT 0.38 mIU/L) and normal free T4 and free T3
- Recheck TFT's (TSH, free T4 and free T3) to exclude non thyroidal illness
- Majority of patients will be asymptomatic and no treatment is required, monitor TFT's every 6 months
- **Consider treatment/referral to secondary care in patients with:**
 - TSH \leq 0.1 mIU/L (measure also TPO/TSH receptor antibodies)
 - Atrial fibrillation
 - Osteoporosis

Hyperthyroidism

- Biochemically defined as suppressed TSH and raised free T4 and/or raised free T3
- The most common causes in clinical practice:
 - Grave's disease
 - Toxic multinodular goitre (MNG)
 - Toxic adenoma
 - Thyroiditis
- It is important to diagnose the cause as it will guide treatment.
- Consider referral to secondary care *
- If no contra-indication and patient very thyrotoxic, consider starting on propranolol 40 mg tds
- Consider seeking early advice whether to start thionamide prior to appointment in secondary care if fT4 > 40 pmol/L AND/OR patient severely thyrotoxic (and diagnosis unlikely to be "thyroiditis")

Strictly speaking the term "**hyperthyroidism**" should only be used where hyperfunction of the thyroid leads to thyrotoxicosis (the clinical signs secondary due to exposure of increased levels of thyroxine)

*There are ongoing discussions regarding virtual endocrine clinic at the moment. Consider contacting virtual endocrine clinic once commenced.

Lead Consultant	Dr Bernd Franke, Consultant Endocrinologist, Dr Jason Page, GP Champion Diabetes
Lead GP	Dr J Kitlowski, Clinical Commissioning Group, NHSR
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