DEGAM-Guideline

Elevated TSH values in primary care

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Short version

Definition of elevated TSH

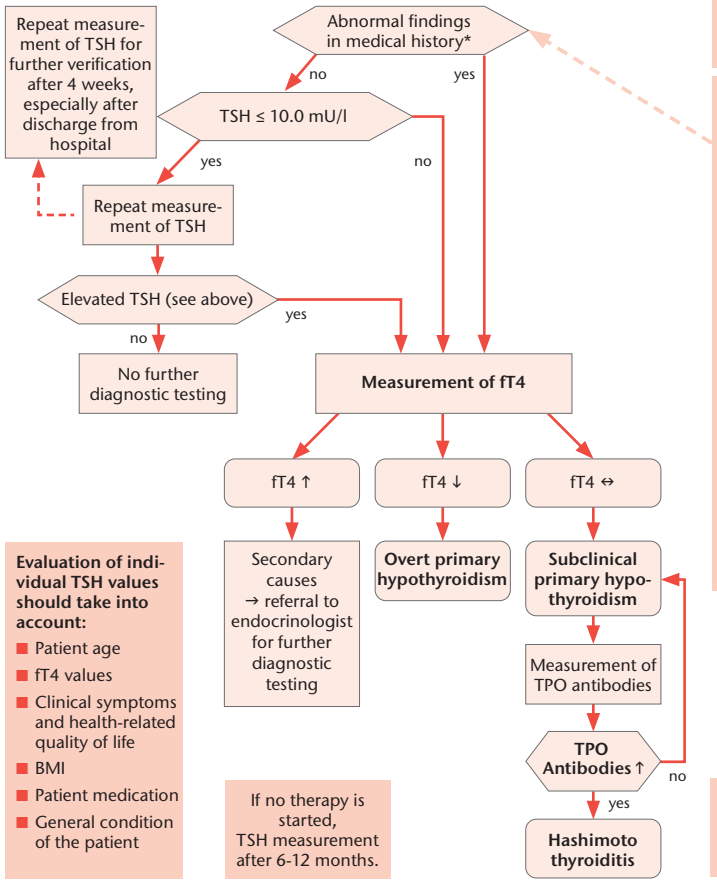
18-70 Jahre: > 4.0 mU/l
> 70-80 Jahre: > 5.0 mU/l
> 80 Jahre: > 6.0 mU/l

No routine TSH screening in asymptomatic adults or in women without known thyroid disease who are pregnant or planning pregnancy.

Pregnant women (with or without known hypothyroidism): **> 4.0 mU/l**
Pregnancy affects the metabolism: β-hCG binds to the TSH receptor, mimicking a weak effect. The upper limit of the normal TSH range in pregnancy is 0.5-1.0 mU/l below the upper limit for non-pregnant women. Due to the lack of evidence of benefit of therapeutic interventions, the normal TSH range in pregnancy has not been adjusted.

Diagnosis

No measurement of TPO antibodies when TSH is in the normal range (this applies to pregnant women as well). **No routine ultrasonography.**



- Comparison of TSH values is only possible with same method of measurement
- Repeat blood draws are to be performed in a constant setting to enable comparison

Factors that increase the likelihood of hypothyroidism:
- History of thyroid disease or thyroid surgery
- History of autoimmune thyroid disease in first-degree relative
- History of radiation therapy in head and neck area or radioiodine therapy for hyperthyroidism
- Psychiatric disorders
- Autoimmune diseases
- Other somatic disorders such as adrenal/cardiac insufficiency, pernicious anaemia, coronary heart disease
- Long-term amiodarone/lithium therapy

***Symptoms are non-specific and as such do not guide clinical action**

Evaluation of individual TSH values should take into account:
- Patient age
- fT4 values
- Clinical symptoms and health-related quality of life
- BMI
- Patient medication
- General condition of the patient

If no therapy is started, TSH measurement after 6-12 months.

Pathologisation based solely on TSH or TPO values that are outside the reference range is not justified.

Therapy

Indications: **1) Overt hypothyroidism**
2) Subclinical Hypothyroidism, if:
TSH ≤ 10 mU/l: No thyroid hormone replacement
TSH > 10 mU/l: ≤ 75 years → Begin replacement therapy
Alternatively: Refrain from therapy until TSH < 20 mU/l
> 75 years → Possible to refrain from therapy up to TSH < 20 mU/l

Prerequisite for refraining from hormone replacement therapy with TSH values > 10 mU/l:
Regular monitoring of TSH and patient education about the potential dangers of TSH > 20 mU/l

Levothyroxin monotherapy → **Goal:** Achievement of euthyroid state
It is important to educate the patient about hypothyroidism and potential consequences of lack of treatment, as well as the nature and intention of hormone replacement therapy.

Relative Contraindicationen
- Coronary heart disease
- Tachycardic arrhythmias

Interactions
- Oestrogens, phenytoin, oral anticoagulants, high dose furosemide, salicylates

Dose administration
- Consistent intake at least 30 min before breakfast or in the evenign before going to bed
- Intake at least 30 min before/after administration of cholestyramine, ferrous sulfate, sucralfate, calcium, antacids

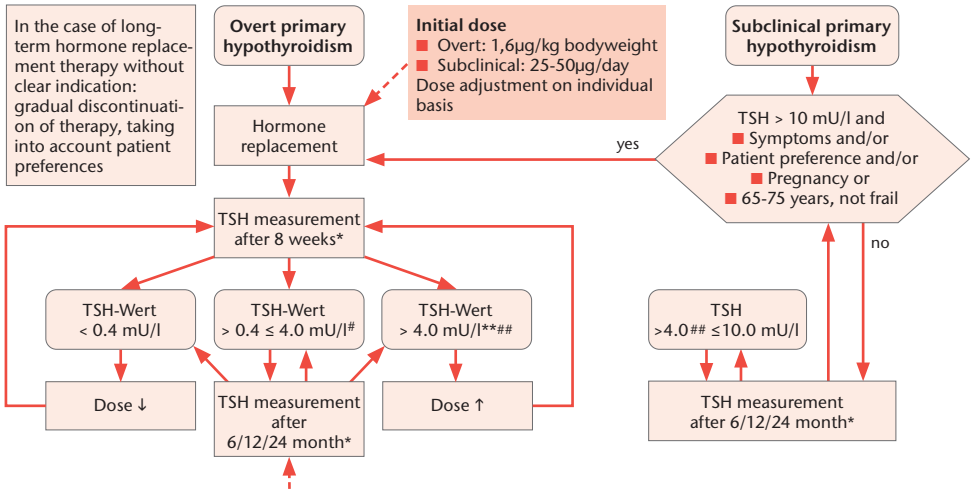
An increase in TSH is to be expected without dose adjustment in pregnant women with pre-existing hypothyroidism under hormone replacement therapy.

A lack of increased need for levothyroxine during pregnancy should prompt critical reassessment of the indication for hormone replacement therapy postpartum.

In the case of long-term hormone replacement therapy without clear indication: gradual discontinuation of therapy, taking into account patient preferences

Initial dose
- Overt: 1,6µg/kg bodyweight
- Subclinical: 25-50µg/day

Dose adjustment on individual basis



The time interval can be adjusted based on clinical symptoms and patient preferences. **Prerequisite:** Comprehensive patient education

* At least once per trimester during pregnancy
** In the case of repeated TSH measurements > 4.0 mU/l → Assess therapy adherence, consider referral to endocrinologist
# Age-adjusted: > 70 bis 80 Jahre: ≤ 5.0 mU/l; > 80 Jahre: ≤ 6.0 mU/l
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