

ELEVATED TSH REFERRAL GUIDELINE

MAINE MEDICAL PARTNERS - PEDIATRIC SPECIALTY CARE (DIV. OF ENDO & DIABETES) • 887 CONGRESS ST, SUITE 100, PORTLAND, ME • (207) 662-5522

HIGH RISK

SUGGESTED EMERGENT CONSULTATION

SYMPTOMS AND LABS

TSH $>$ 10 times upper limit of normal

OR

Low free T₄ at any TSH

OR

Failure of linear growth

OR

Children $<$ 3 years old

OR

Assymetric goiter, particularly if suspicious for a nodule or has associated adenopathy

SUGGESTED PREVISIT WORKUP

Discuss with endocrinology

Usually will recommend repeat TSH, Free T₄ with antibodies and may offer treatment to start same day by phone ahead of first endocrine visit

Patients seen in endocrinology within 1 month

Ultrasound is generally not indicated if only has symmetric gland enlargement

Concerns for thyroid nodules or thyroid cancer should be discussed with endocrinology

MODERATE RISK

SUGGESTED CONSULTATION OR CO-MANAGEMENT

SYMPTOMS AND LABS

TSH $>=$ 7 but $<$ 10x upper limit of normal with normal free T₄

OR

Symmetrically enlarged thyroid with TSH elevated but $<$ 7

AND

Only nonspecific symptoms

AND

Age $>$ 3 years with normal linear growth

SUGGESTED WORKUP

Confirm with repeat TSH, Free T₄ and thyroid antibodies (see LOW RISK box)

If positive antibodies with elevated TSH then likely has Hashimoto's thyroiditis and treatment with levothyroxine is needed

Pediatric endocrine referral encouraged

LOW RISK

SUGGESTED ROUTINE CARE

SYMPTOMS AND LABS

TSH elevated but $<$ 7

AND

Symptoms are rare and nonspecific

Mild elevation in TSH with normal free T₄ is unlikely to account for clinical symptoms

Low risk patients usually are older than age 3 without thyromegaly

OR

Have obesity as the main reason TSH was checked and no other concerning features for hypothyroidism

SUGGESTED MANAGEMENT

Repeat TSH and Free T₄ in 4-6 months

With repeat labs check thyroidperoxidase antibody and thyroglobulin antibody

If antibodies are negative and TSH, free t₄ are normal, no further workup is needed

If labs are still abnormal see MODERATE RISK box

CLINICAL PEARLS

- Congenital Hypothyroidism is an "endocrine emergency" and NOT the focus of this guideline, call immediately.
- Normal TSH (units uU/mL) varies with age and by lab. Ask if your labs is providing adult or pediatric norms.
- NorDx uses Esoterix norms for pediatric TSH: 1-11 months 0.9-7.7, prepubertal 0.6-5.5, puberty and adult 0.5-4.8
- Severe hypothyroidism is more likely to cause failure of linear growth in children than cause any other symptom or sign.
- Children under 3 years are can have irreversible brain damage if not properly treated for hypothyroidism.
- Elevated BMI causes mild elevation in TSH (usually 1-3 uU/dL over normal). Longstanding obesity with good linear growth is very unlikely to be due to a thyroid problem. Consider not screening with TSH in such patients.

Maine Medical
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