

## **PEDIATRIC ENDOCRINOLOGY:**

### **Hypothyroidism**

**1. Definition:** TSH level > 5 uIU/ml, and/or free T4 < 1.0 ng/dl

**2. Relevant Information:**

- Patient is asymptomatic or has cold intolerance, pallor, growth delay
- Family History: Thyroid disorders, autoimmune disease
- Past Medical Problems: autoimmune disease, CNS tumors, head/neck irradiation or surgery, hypopituitarism
- Medications: Lithium, anticonvulsants, steroids

**3. Physical Exam:**

- HR- low or normal for age
- BP – normal for age
- Skin- pale, vitiligo, puffy
- Eyes- exophthalmus (can occur infrequently)
- Genitalia – normal or advanced for age (can have precocious puberty)
- Reflexes- normal or delayed relaxation phase
- Thyroid- increased in size, normal or atrophic

**4. Initial Screening Studies:**

Serum: (normal values)  
TSH 0.10 - 5.0 uIU/ml  
Free T4 1.0-2.2 ng/dl  
Total T4 5.0-10.6 ug/dl  
Antithyroid antibodies- negative

**5. Disposition:**

- a) Routine follow-up if all findings and lab screening tests are normal
- b) Referral if abnormalities on examination or screening test
- c) Can refer to Yale Pediatric Thyroid Center (Scott Rivkees, MD)  
Telephone 203-737-5971, Fax 203-737-5972.  
<http://www.yalepediatrics.org/thyroid/index.html>