Hyperthyroidism

**Signs or Symptoms of hyperthyroidism?**
- Nervousness, tachycardia, frequent stools, excessive sweating, heat intolerance, weight loss, insomnia, goiter, thyroid nodule.

**At risk of fetal thyroid disease?**
- Previous pregnancy affected by fetal thyroid disease
- History of hyperthyroidism s/p ablation or thyroidectomy

**Normal no additional workup necessary**

**Revisit TSH at 18-20 weeks if symptomatic**

**Usual Care**

**Order TSH**

**TSH≥0.1**

- Normal T4*

- High T4*

**Order T4***

**TSH<0.1**

- Likely gestational transient thyrotoxicosis, subclinical hyperthyroidism or hyperemesis gravidarum, however, if high concern refer to Endo for workup of T3 thyrotoxicosis

**Overt Hyperthyroidism**

- Baseline CBC + LFTs
- Start antithyroid meds (below)
- UNC MFM referral
- Fetal surveillance (see box)

**PTU 100mg TID (max 900 mg TID)**

**Switch meds in 2nd tri**

**Methimazole 10 mg QD (ratio 1:20 PTU:methimazole max 30 mg QD)**

**Repeat T4* & TSH every 2-4 weeks**

**High T4***

- Up titrate antithyroid drugs

**Normal T4***

- Continue antithyroid drugs

- If T4* over 2 months consider decreasing antithyroid drug by ½

**Order TSH & T4***

**Order TSH & T4** AND TSI

**If TSI > 160% see Fetal Thyroid Disease Algorithm**

**Is disease low-risk? (MMI ≤ 5-10mg/d or PTU ≤ 100mg/d) and no TSI**

- Consider discontinuing antithyroid drugs after discussion with MFM or Endocrinology

**Normal TSH levels in pregnancy***

<table>
<thead>
<tr>
<th>Free T4 (FT4)</th>
<th>Normal</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same as nonpregnant (&lt;1.4)</td>
<td>Same as nonpregnant (≥1.4)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total T4 (TT4)</th>
<th>Normal</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1.5 times the upper limit for nonpregnant (&lt;16.5)</td>
<td>&gt;1.5 times the upper limit for nonpregnant (≥16.5)</td>
<td></td>
</tr>
</tbody>
</table>
Hyperthyroidism

Maternal Antithyroid medication safety:
- If maternal symptoms of fever or sore throat develop, stop PTU or Mathimazole and order CBC with differential to rule out agranulocytosis
- If weakness, jaundice, dark urine, light colored stool, or nausea and vomiting develop, stop PTU and order LFTs and bilirubin to rule out PTU-associated hepatotoxicity
- If case of PTU or MMI toxicity with continued maternal hyperthyroidism requiring treatment, refer to endocrinology/surgery for consideration of possible thyrodection

Antepartum fetal surveillance:
- FHR at each visit
- Targeted anatomy ultrasound at 18-20 weeks
- Monthly ultrasound for growth and surveillance for signs of fetal thyroid disease starting at 28 weeks
- Weekly NST or BPP at 32 weeks

Postpartum Care:
- Continue antithyroid medication
- OK to breasfeed
- Refer to PCP or Endocrinology for continual care
- Repeat TSH and Free T4 at 4-6 week postpartum visit
References:


Revised 6/2019 AB

These algorithms are designed to assist the primary care provider in the clinical management of a variety of problems that occur during pregnancy. They should not be interpreted as a standard of care, but instead represent guidelines for management. Variation in practices should take into account such factors as characteristics of the individual patient, health resources, and regional experience with diagnostic and therapeutic modalities.

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