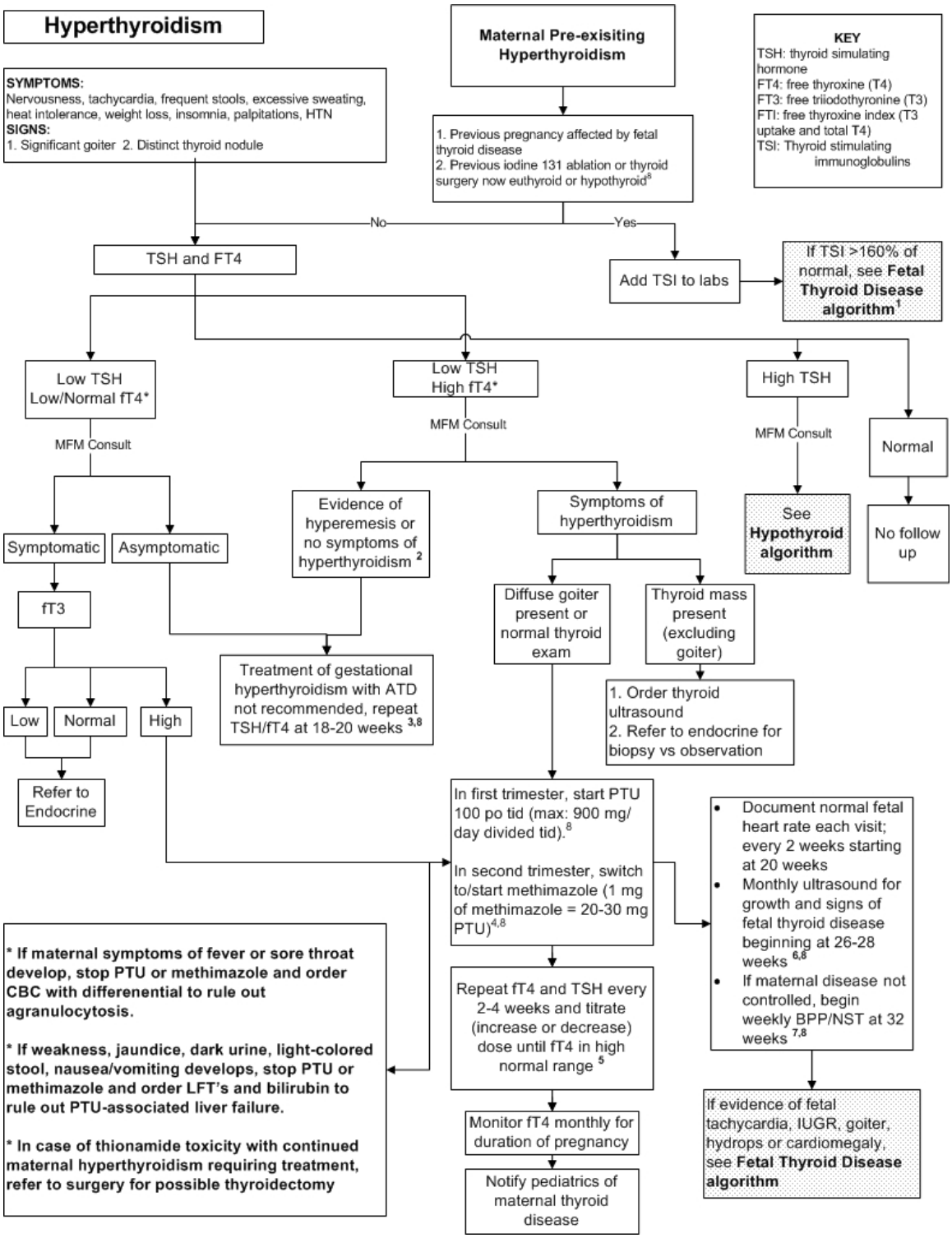
UNC SCHOOL OF MEDICINE

UNC Center for Maternal & Infant Health

Hyperthyroidism



References

1. Kilpatrick S. Umbilical blood sampling in women with thyroid disease in pregnancy: Is it necessary? **Am J Obstet Gynecol 2003;189:1-2.** *TSAb should be done on women with history of treatment with ^{131}I or with a previously affected neonate. PUBS should be offered to pregnant women with Graves' disease if any one of the following are present: a) a history of a prior affected baby, b) a history of maternal ^{131}I treatment and a high TSAb level (>5IU or >160%), c) the fetus displays fetal tachycardia, growth restriction, fetal goiter, hydrops or cardiomegaly.*

2. Goodwin, MT, Montoro, M, Mestman, JH, Transient hyperthyroidism and hyperemesis gravidarum: Clinical aspects. **Am J Obstet Gynecol 1992;167:648-52**. 60% of patients with hyperemesis had abnormal thyroid function studies. All 32 patients followed up had documented normal free thyroxine index by 18 weeks gestation or over a period of time ranging from 1 to 10 weeks. None received anti-thyroid medication.

3. Mandel SJ, Cooper DS. The use of antithyroid drugs in pregnancy and lactation. **J Clini Endocrinol Metab 2001;86:2354-9**. *In asymptomatic patient whose serum fT4 is minimally above 2.5 ng/dl, careful clinical follow-up without anti-thyroid therapy may be appropriate.*

4. Bahn RS, Burch HS, Cooper DS, et al. The role of propylthiouracil in the management of Grave's disease in adults: report of a meeting jointly sponsored by the American Thyroid Association and the Food and Drug Association. **Thyroid 2009;19:673-4.** *Given the risk for PTU-associated liver failure, PTU is no longer recommended as first line therapy for hyperthyroidism in pregnancy. PTU should be used in the first trimester. Methimazole should be started in the second trimester and continued for the remainder of pregnancy.*

5. Mandel SJ, Cooper DS. The use of antithyroid drugs in pregnancy and lactation. **J Clini Endocrinol Metab 2001;86:2354-9.** *When Graves' hyperthyroidism occurs or recurs during pregnancy, an anti-thyroid drug should be given in the lowest dose necessary to maintain the woman's serum free thyroxine concentration in the upper part of the normal reference range or just above this range.*

6. Millar LK, Wing DA, Leung AS, Kooings PP, Montoro MN, Mestman JH. Low birth weight and preeclampsia in pregnancies complicated by hyperthyroidism. **Obstet Gynecol 1984;84:946-9.** *Odds ratio for low birth weight (<2500g) is elevated in patients in patients who were hyperthyroid on presentation but became controlled during pregnancy OR 2.4 [1.4-4.1] and in women whose hyperthyroidism was not controlled OR 9.2 [5.5-16].*

7. Davis LE, Lucas MJ, Hankins GDV, Roark ML, Cunningham FG. Thyrotoxicosis complicating pregnancy. **Am J Obstet Gynecol 1989;160:63-70.** *Retrospective review of 60 pregnancies complicated by thyrotoxicosis showed 6 stillbirths and 1 mid-pregnancy loss; all in women in whom clinical euthyroidism was not achieved. Two were treated but had persistent thyrotoxicosis and 5 were not treated.*

8. Stagnaro-Green A, Abalovich M, Alexander E, et al. Guidelines of the American Thyroid Association for the Diagnosis and Management of Thyroid Disease During Pregnancy and Postpartum. **Thyroid 2011;21:1061-1124.** *The recommendations of this committee include: Obtain TRAb at 20-24 weeks EGA with past or current history of Graves disease, with 3 x upper limit of normal being elevated. Serial US surveillance (heart rate, growth, AFI, assessment for fetal goiter) should be performed in women with uncontrolled hyperthyroidism or elevated TRAb levels. Cordocentesis is reserved for use in determining thyroid function status in presence of fetal goiter. MMI (dose up to 20-30 mg/d) and PTU (up to 300mg/d) as second line agent due to potential for hepatoxicity, are compatible with breastfeeding (take following a feeding and use in divided doses).*

Revised December 10, 2011.

Notification to Users

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.