Thyroid Disease During Pregnancy: Guidelines Updated

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August 13, 2012 — The Endocrine Society's clinical practice guideline for the management of thyroid disease during pregnancy and after birth has been updated from its 2007 version.

The clinical practice guideline, published in the August issue of the *Journal of Clinical Endocrinology and Metabolism*, recommends approaches to diagnosing and treating patients with thyroid-related medical issues before, during, and immediately after pregnancy.

Leslie De Groot, MD, from the University of Rhode Island in Providence, led a team of 13 experts who compiled the guidelines. In addition to the US-based Endocrine Society, the Asia and Oceania Thyroid Association, the European Thyroid Association, and the Latin American Thyroid Society cosponsored the development of the new guideline.

Revisions and additions to the clinical practice guideline include the following:

- Trimester-specific reference ranges for pregnant women, using a free T_4 assay, should be established. "The nonpregnant total T_4 range (5–12 μg/dL or 50–150 nmol/liter) can be adapted in the second and third trimesters by multiplying this range by one and a half-fold. Alternatively, the free T_4 index...appears to be a reliable assay during pregnancy," the authors write.
- Propylthiouracil (PTU) should be the first-line drug for treatment of hyperthyroidism during the first trimester of pregnancy. Methimazole (MMI) may also be prescribed if PTU is not available or not tolerated. Clinicians should change treatment of patients from PTU to MMI after completion of the first trimester because of the potential for liver toxicity.
- Breast-feeding women should maintain a daily intake of 250 μg iodine to ensure breast-milk provides 100 &um;g iodine per day to the infant.
- Once-daily prenatal vitamins should contain from 150 to 200 μg iodine in the form of potassium iodide or iodate, "the content of which is verified to ensure that all pregnant women taking prenatal vitamins are protected from iodine deficiency," the authors write.
- Thyroid receptor antibodies should be measured before 22 weeks' gestational age in mothers with "1) current Graves' disease; or 2) a history of Graves' disease and treatment with ^{131}I or thyroidectomy before pregnancy; or 3) a previous neonate with Graves' disease; or 4) previously elevated [thyroid-stimulating hormone receptor antibodies (TRAb)]," according to the authors
- In women with TRAb at least 2- to 3-fold the normal level, and women treated with antithyroid drugs, "fetal thyroid dysfunction should be screened for during the fetal anatomy ultrasound done in the 18th–22nd week and repeated every four to six weeks or as clinically indicated. Evidence of fetal thyroid dysfunction could include thyroid enlargement, growth restriction, hydrops, presence of goiter, advanced bone age, tachycardia, or cardiac failure," the authors write.
- Women with nodules from 5 mm to 1 cm in size should be considered for fine-needle aspiration (FNA) if they have a high risk history or suspicious findings on ultrasound, and women with complex nodules from 1.5 to 2 cm in size should also receive an

FNA. "During the last weeks of pregnancy, FNA can reasonably be delayed until after delivery. Ultrasound-guided FNA is likely to have an advantage for maximizing adequate sampling," the authors conclude.

The committee did not reach a consensus on screening recommendations for all newly pregnant women. "Some members recommend screening of all pregnant women for serum TSH abnormalities by the ninth week or at the time of their first visit. Other members recommend neither for nor against universal screening of pregnant women at the time of their first visit and support aggressive case finding to identify and test high-risk women. In some situations, ascertainment of an individual's risk status may not be feasible and in such cases, testing of all women by 9 weeks of pregnancy or at the first prenatal visit is reasonable," according to a written release from the Endocrine Society.

Dr. De Groot has disclosed no relevant financial relationships. Full conflict-of-interest information is available in the article.

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