Little Consensus on Gestational Thyroid Screening

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VERONA, ITALY — Newly developed consensus guidelines recommend thyroid-function screening in high-risk pregnant women, but stop short of calling for universal screening.

An international task force, under the auspices of the Endocrine Society, examined 10 key topics related to pregnancy and thyroid. The result was an 86-page document outlining 35 recommendations, many of which were reached after a diplomatic search for compromise, Dr. Daniel Glinoer said at a joint meeting of the Italian Association of Clinical Endocrinologists and the American Association of Clinical Endocrinologists.

The difficulty stemmed from the paucity of prospective randomized trials in the field, the contrasting approaches of various specialists on some issues, and the emergence of additional data even as the task force was writing the guidelines.

Despite compromises on many recommendations, the American College of Obstetricians and Gynecologists (ACOG) opted not to endorse the final guidelines. Dr. Sarah Kilpatrick, who represented ACOG on the task force, acknowledged the effort that went into the guidelines.

"The data available are not consistently good and there are still many differences of opinion between endocrinologists and perinatologists about how to interpret the data and best manage pregnant women," Dr. Kilpatrick, professor and head of the department of ob.gyn. and vice dean of the college of medicine at the University of Illinois at Chicago, said in an interview.

For the purpose of screening, the task force identified high-risk women as those with a personal history of thyroid or autoimmune disorders; a family history of thyroid disorders; or a personal history of infertility or preterm delivery.

For maternal hypothyroidism, which affects 2.5%-3% of pregnant women, the task force recommends a targeted case-finding approach at the first prenatal visit or at diagnosis of pregnancy. The preconception thyroxine dosage should be adjusted to reach a serum thyroid-stimulating hormone (TSH) level no higher than 2.5 microIU/L. The thyroxine dosage usually needs to be incremented by 4-8 weeks of gestation, and these patients may require a 30%-50% increase in dosage, said Dr. Glinoer, who represented the European Thyroid Association on the task force and is chief of the thyroid investigation clinic at the Centre Hôpitalier Universitaire Saint-Pierre, Brussels.

If overt hypothyroidism is diagnosed during pregnancy, thyroid function tests should be normalized as rapidly as possible, in view of the potential obstetric complications and risks for the offspring associated with undisclosed prolonged hypothyroidism. Thyroxine dosage should be titrated to rapidly reach, and then maintain, serum TSH concentrations of less than 2.5 microIU/L in the first trimester or less than 3 microIU/L in the second and third trimesters, or to trimester-specific normal TSH ranges, which Dr. Glinoer admitted haven't been universally established.

There was a consensus against advising termination of pregnancy, even if overt hypothyroidism is diagnosed late, he said.

If a subnormal serum TSH concentration is detected, hyperthyroidism must be distinguished from both normal physiology and hyperemesis gravidarum because of the adverse effects of overt hyperthyroidism on mother and fetus. Antithyroid drug (ATD) therapy should be either initiated for those with a new diagnosis of hyperthyroidism resulting from Graves' disease or adjusted for those with a prior history to maintain maternal free thyroxine levels in the trimester-specific normal pregnancy range, if available, or near the upper limit of the nonpregnant reference range.

Data suggest methimazole may be associated with congenital anomalies, so the task force recommends propylthiouracil (PTU) as first-line medication, especially in the first trimester. Methimazole may be prescribed if PTU is unavailable, or a patient can't tolerate or has an adverse reaction to it.

The task force concluded that subtotal thyroidectomy may be indicated for maternal Graves' disease if there are severe adverse reactions to ATD therapy, if persistently high ATD doses are required, or if a patient is nonadherent to ATD therapy and has uncontrolled hyperthyroidism. Surgery is best in the second trimester. No data suggest treatment of subclinical hyperthyroidism improves pregnancy outcome, and it could adversely affect the fetus. ■