

THYROID FUNCTION

New guidance for the diagnosis and management of thyroid diseases in pregnancy

New clinical guidelines for the diagnosis and treatment of thyroid disease in pregnancy have been published in the journal *Thyroid*.

“The guidelines provide recommendations on how to diagnose and treat the entire spectrum of thyroid abnormalities that can present during pregnancy or in the postpartum period,” says Alex Stagnaro-Green, Chair of the American Thyroid Association task force charged with developing the guidelines. “Thyroidologists, obstetricians and midwives were included on the task force to ensure widespread acceptance and adoption of the guidelines.”

Thyroid disease in women of childbearing age is relatively frequent, and pregnancy, as the task force points out, puts additional stress on the thyroid gland. The consequence is hypothyroidism in pregnant women with limited thyroidal reserve or iodine deficiency, and postpartum thyroiditis in women with underlying autoimmune thyroid disease who were euthyroid before conception.

“Knowledge of the interaction between the thyroid and pregnancy or postpartum is advancing at a rapid rate,” comments Stagnaro-Green. In the past few years, new research has shed light on the association between the presence of thyroid autoantibodies in euthyroid women and the risk of miscarriage or preterm birth. In addition, the effect of subclinical thyroid disease on maternal and fetal health and the clinical outcomes of mother and fetus after treatment of thyroid disease during pregnancy are emerging.

The task force make 76 recommendations in nine specific areas. For the first—thyroid function testing in pregnancy—trimester-specific reference ranges for TSH are provided.

Hypothyroidism in pregnancy is associated with both cognitive impairment in offspring and adverse pregnancy outcomes. In the guidelines,

recommendations are made to treat pregnant women who have either overt hypothyroidism or subclinical hypothyroidism and thyroid peroxidase antibodies with oral levothyroxine. For women already taking levothyroxine for hypothyroidism who are planning a pregnancy, a levothyroxine dose adjustment to achieve a TSH level <2.5 mIU/l before conception is recommended. However, if newly pregnant, women taking levothyroxine for hypothyroidism are recommended to increase their dose by 25–30% and notify their caregiver promptly.

Graves disease is the most common cause of thyrotoxicosis in pregnancy. The task force recommends that women with Graves disease should be counseled before pregnancy and rendered euthyroid before attempting pregnancy. During pregnancy, women treated with antithyroid drugs for thyrotoxicosis should achieve a free T_4 level at or moderately above the normal reference range.

Iodine deficiency affects over 2 billion people worldwide, can cause intellectual deficits in offspring, and is not exclusive to developing countries. As increased iodine uptake is required in pregnancy and lactation, the guidelines recommend that all pregnant and breastfeeding women in the US should include a daily supplement that contains 150 μ g of iodine in their diet. John Lazarus of Cardiff University agrees that iodine supplements should be considered for pregnant women. “The iodine situation in the UK is disgraceful, as recent evidence shows,” he comments.

The task force includes three algorithms. The first is for the work-up and treatment of thyroid nodules detected during pregnancy; the guidelines suggest that surgery for women with thyroid cancer diagnosed during pregnancy may usually be postponed until after delivery. The second algorithm concerns the diagnosis

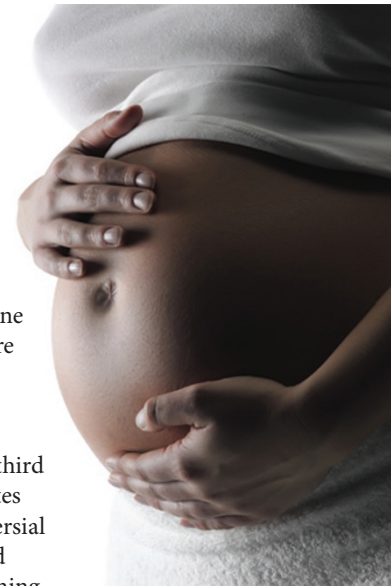
and treatment of postpartum thyroiditis, as women with this autoimmune disorder require long-term monitoring of thyroid function. The third algorithm relates to the controversial issue of thyroid function screening in pregnancy. The

task force found insufficient evidence to recommend universal screening. “The only prospective randomized trial to test the effect of universal screening (the CATS study) failed to show any benefit on the intellectual development of children,” as Lazarus concedes. “More trials are in progress but we will have to wait a long time before the results.” However, the experts do recommend targeted screening for women at high risk of thyroid disease during pregnancy, including all women ≥ 30 years of age.

The task force comment that only one in four recommendations were graded at the highest level using the US Preventative Services Task Force Guidelines owing to a lack of double-blind, placebo-controlled trials, and they identify critical directions for future research. For now, as research moves apace, Stagnaro-Green believes that “the thyroid guidelines will play a pivotal role in educating clinicians and guiding them in the care of women during pregnancy and the postpartum.”

Carol Wilson

Original article Stagnaro-Green, A. *et al.* Guidelines of the American Thyroid Association for the diagnosis and management of thyroid disease during pregnancy and postpartum. *Thyroid* doi:10.1089/thy.2011.0087



© Newphotoservice | Dreamstime.com