The New American Thyroid Association Guidelines for Thyroid Disease During Pregnancy and Postpartum: A Blueprint for Improving Prenatal Care

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The current issue of Thyroid is highlighted by the publication of “Guidelines of the American Thyroid Association for the Diagnosis and Management of Thyroid Disease During Pregnancy and Postpartum” (1). Led by Alex Stagnaro-Green, the authors of this document are members of a task force appointed by the American Thyroid Association (ATA) and charged with developing clinical guidelines for the diagnosis and treatment of thyroid disease during pregnancy and the postpartum. The task force is to be commended, along with all who supported them in this ambitious and highly successful effort.

Why do I like the new ATA Guidelines in this issue of Thyroid so much? To begin with, the task force has deconstructed the multifaceted subject of thyroid disease during and after pregnancy into 84 discrete questions, the answers to which are rated for strength of evidence, thereby forming the basis for reasoned recommendations. In spite of the document’s length (necessary to do justice to the global topic), the information is readily accessible and understandable. A further praiseworthy feature is the provision for dissenting views to be expressed, allowing the reader to better understand the extent and nature of disagreement. All of this should serve as a starting point for those of us involved with diagnosing and/or managing thyroid disease in pregnancy to explore how to do better.

The Guidelines offer an unusual opportunity to improve the identification and management of a broad spectrum of thyroid disorders in pregnancy and during the postpartum period. While the authors make a disclaimer that there will inevitably be a need for revisions (due to the dynamic nature of the field), the fact is that much of the content reflects areas that are likely to offer good practice advice for many years. All too often, important scholarly activities of this type with a genuine prospect for improving medical practice fall short of their potential, due to absence of mechanisms for promoting systematic implementation. One important step in such implementation would be to assure that these Guidelines are made available either in print or online to every practice in North America that offers either primary prenatal care or specialty endocrine services to women during and after pregnancy.

Distribution might be made possible through joint sponsorship by professional groups, such as the American College of Obstetricians and Gynecologists, the American Academy of Family Practice, and, of course, the ATA. Having these Guidelines at hand would be especially valuable as a reference source for thyroid disorders encountered only occasionally in primary prenatal care (e.g., Graves’ disease, nodules, or cancer), but they should also prove useful in reminding caregivers about how to approach everyday problems, such as hypothyroidism. The potential for these Guidelines to improve the management of such everyday situations is particularly interesting to me. To accomplish this, a companion strategy might be devised in which selected topic areas are extracted from the Guidelines to serve as a platform for encouraging universal application. Either a public health organization (e.g., the U.S. Centers for Disease Control and Prevention [CDC]) or the professional coalition described above might take the lead in this effort.

The following are examples of some everyday management situations that might be favorably influenced by such an initiative. One can only imagine how much benefit could be gained by widespread acceptance and application of even these few.

- **What management is appropriate for women with known hypothyroidism?** About 4% of women coming for prenatal care have previously been diagnosed with hypothyroidism (2). Recommendation 13 states that women in this category should automatically take two extra doses of L-thyroxine per week, as soon as pregnancy is discovered (3,4). Often, however, the woman will not be aware of this recommendation prior to her first prenatal visit. The responsibility, therefore, falls upon the caregiver not only to order a thyrotropin (TSH) measurement, but also to assure that she adjusts her dose schedule immediately. A recent study examined sequential first and second trimester TSH measurements in a cohort of 397 women with known hypothyroidism (2). TSH values were above the recommended cutoff in 43% (first trimester) and remained elevated in 33% (second trimester). These women were being seen in...
academic centers, and all enrolled for care in the first trimester in order to qualify for the study. There is thus considerable room for improvement, and the remedy is simple and straightforward.

- **What is the recommended daily iodine intake in North America for women who are planning pregnancy or are pregnant or breastfeeding?** Recommendation 37 states that all women in these categories should take a daily supplement that contains 150 mg of iodine. This is similar to the view expressed by an expert group at a CDC meeting in 2004 and is also in keeping with an earlier recommendation from the ATA (5, 6). The explanatory text accompanying this recommendation points out that only a minority of pregnant women (20%) actually take such supplements and that only about half of all prenatal vitamins contain iodine. Part of any promotion involving improved thyroid management might well focus on this aspect of implementation.

- **What management is appropriate for women without known hypothyroidism?** Recommendations 72, 75, and 76 reflect the ongoing debate about routine TSH testing versus family history screening to identify high-risk women for TSH testing. There is documentation in the literature that between 2 and 3 out of every 1000 pregnant women have undiagnosed overt hypothyroidism (as defined by a TSH concentration above 10 mIU/L) and that an average of 5 years elapses before a clinical diagnosis is made (7, 8). While routine family history screening is less effective than TSH testing in identifying cases of hypothyroidism, it is a considerable improvement over doing nothing (9). Whichever approach is chosen, the important message for practitioners is that it is no longer acceptable to choose neither. Thyroid disorders occur regularly in conjunction with routine prenatal care. For practices choosing not to apply routine TSH testing, a history form with relevant questions (examples are listed in question 76) can identify women who could benefit from further evaluation.

- **What is the reliability of the diagnostic tools?** In setting definitions for subclinical hypothyroidism and overt hypothyroidism in Question 4, the task force performs a valuable service. The definitions, in combination with Recommendation 4, make clear that TSH is the most reliable measure of thyroid deficiency and simultaneously emphasize both the limitations and appropriate use of free thyroxine (T4) measurement. The rule of thumb should be that any evaluation of thyroid function begins with measuring TSH. Recommendations 4 and 5 explain why interpretation of free T4 measurement may be ambiguous, due to among-person variations in “normal,” as well as limitations in assay performance with currently used immunologic methods (10, 11). No matter what therapeutic course practitioners choose, they benefit from having benchmarks offered by these definitions.

Effective implementation of the new Guidelines, especially those aimed at preventing or avoiding adverse consequences from thyroid-related problems, requires broadly based awareness and acceptance. That challenge is now in our hands.

References


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