

CSEM Review and Response

Choosing Wisely Canada Recommendation #3: Testing and Management of Primary Hypothyroidism



The Canadian Society of Endocrinology and Metabolism (CSEM) is the national specialty society representing endocrinologists and the national advocate for excellence in endocrinology research, education, and patient care. CSEM is a partner of Choosing Wisely Canada, a national, clinician-led campaign that engages physicians and patients in conversations about unnecessary tests and treatments. CSEM developed the Choosing Wisely Canada list of recommendations of “[Things Physicians and Patients Should Question in Endocrinology and Metabolism](#).” These recommendations identify tests and treatments that are not based on best practices nor supported by evidence and may expose patients to harm. Recommendations are not intended to establish payment and coverage decisions. Rather, they are meant to foster conversations between physicians and patients and encourage shared-decision making. As each patient situation is unique, physicians and patients are encouraged to use Choosing Wisely Canada materials to support conversations and determine an appropriate treatment plan together.

Recently, CSEM and Choosing Wisely Canada received feedback from patients regarding the recommendation “Don’t use Free T4 or T3 to screen for hypothyroidism or to monitor and adjust levothyroxine (T4) dose in patients with known primary hypothyroidism.” CSEM recommends serum thyroid stimulating hormone (TSH) as the main test of choice in the screening and management of primary hypothyroidism. Therefore, in most people a normal TSH indicates either normal endogenous thyroid function or an adequate T4 replacement dose. Should there still remain a clinical concern, patients may have further testing as appropriate. CSEM’s recommendation supports an evidence-based approach to thyroid disease testing and management. It encourages physicians and patients to discuss and determine when free T4 or T3 testing are appropriate and necessary. The recommendation does not suggest eliminating free T4 or T3 testing when patients and physicians agree it is needed.

In response to patient concerns regarding the recommendation, CSEM and Choosing Wisely Canada requested an independent review of the medical literature from Canadian Agency for Drugs and Technologies in Health (CADTH), an independent, not-for-profit organization responsible for providing health care decision-makers with objective evidence to help make informed decisions about the optimal use of health technologies¹. The review focused on current literature and evidence-based guidelines regarding the assessment of free T3 or T4 in primary hypothyroidism. The review found that the evidence was limited and primarily consensus-based. There was a recommendation for the selective use of free T4 assessment in only certain circumstances. The review of the evidence can be found [here](#).

CSEM acknowledges that clinical trials on free T4 or T3 assays are limited. There is, however, physiologic evidence and consensus-based guidelines supporting TSH as the primary test of choice in screening for primary hypothyroidism.

Following this independent review, CSEM has modified recommendation #3 on the Endocrinology and Metabolism list to clarify that patients should have access to additional testing, as required. The recommendation is now: ***Don’t use Free T4 or T3 to screen for hypothyroidism or to monitor and adjust levothyroxine (T4) dose in patients with known primary hypothyroidism, unless the patient has suspected or known pituitary or hypothalamic disease.***

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Additionally, CSEM is committed to:

- Updating its members on the review and response to patient concerns, and on the modified Choosing Wisely recommendation.
- Reviewing the full list of recommendations on an annual basis. Choosing Wisely Canada recommendations are reviewed yearly and updated with current evidence.
- Collecting patient experiences regarding hypothyroidism testing and management, as well as other thyroid issues, and particularly, funding and coverage issues. CSEM is working with the Thyroid Foundation of Canada to advocate for appropriate care for thyroid patients.
- Fostering opportunities for new research that may help guide these important testing and treatment decisions for patients with thyroid disease.

CSEM and Choosing Wisely Canada encourage and support physicians and patients to engage in conversations about tests and treatments, focusing on evidence-based shared-decision making with patients. We encourage patients to discuss any concerns with their family physician and/or endocrinologist.

ⁱ CADTH <https://www.cadth.ca/about-cadth>