



## **Recommendations on screening adults for asymptomatic thyroid dysfunction in primary care – Clinician Summary**

### **POPULATION**

The recommendation applies to asymptomatic non-pregnant adults aged 18 years and older, who do not have risk factors for thyroid dysfunction.

### **BURDEN OF ILLNESS**

Thyroid dysfunction (i.e., hypothyroidism or hyperthyroidism) affects around 10% of Canadians aged 45 years or older. Prevalence is higher in females (16%) than males (4%), and also higher in adults older than 85 years of age (16%). If left untreated, thyroid dysfunction can have negative consequences including cardiac conditions, cognitive impairment, and dyslipidemia. However, observational studies have reported that 37-62% of patients with initially elevated levels of thyroid-stimulating hormone (TSH), and 51% with initially low levels of TSH, revert to normal levels on their own over time<sup>1,2</sup>.

### **RECOMMENDATIONS**

We recommend against screening\* asymptomatic non-pregnant adults aged 18 years and older for thyroid dysfunction in primary care settings (*strong recommendation, low-certainty evidence*).

This recommendation does not apply to adults who have the following risk factors for thyroid dysfunction: individuals who have had a previously diagnosed thyroid disease or surgery, individuals receiving thyroid medications or medications that may affect thyroid function (i.e., lithium, amiodarone), individuals with previous or ongoing exposure to thyroid radioiodine therapy or head and neck radiotherapy, or individuals with pituitary or hypothalamic diseases.

\*Screening refers to measuring levels of thyroid-stimulating hormone (TSH) in patients with no apparent signs and symptoms of thyroid dysfunction.

### **BASIS OF RECOMMENDATIONS**

- A systematic review suggests that the effectiveness of treating asymptomatic adults for screen-detected hypothyroidism results in little to no difference in clinical outcomes.
- No studies on treating screen-detected hyperthyroidism were found. Similarly, no studies were found on screening for thyroid dysfunction.
- Screening for thyroid dysfunction in asymptomatic non-pregnant adults is not likely to confer clinical benefit, but could lead to unnecessary treatment for some patients and consume resources.



## **CONSIDERATIONS FOR IMPLEMENTATION**

This recommendation only applies to screening asymptomatic non-pregnant adults aged 18 years and older. While the task force recommends against routinely screening for thyroid dysfunction in this population, clinicians should remain alert to signs and symptoms (e.g., unusual fatigue, unexpected weight loss or gain, menstrual irregularities, goiter, etc.) or risk factors (e.g., pituitary or hypothalamic diseases) suggestive of thyroid dysfunction and investigate accordingly.



## REFERENCES

- (1) Diez J, Iglesias P. Spontaneous subclinical hypothyroidism in patients older than 55 years: An analysis of natural course and risk factors for the development of overt thyroid failure. *J Clin Endocrinol Metab* 2004;89(10):4890-4897.
- (2) Meyerovitch J, Rotman-Pikielny P, Sherf M, Battat E, Levy Y, Surks M. Serum thyrotropin measurements in the community: Five-year follow-up in a large network of primary care physicians. *Arch Intern Med* 2007;167(14):1533-1538.

