



How useful is thyroid cancer screening in asymptomatic persons?

Editors

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The US Preventive Services Task Force (USPSTF) issues recommendations on the effectiveness of specific preventive services for asymptomatic subjects. These recommendations are based on the available evidence, and aim to establish a balance between harm and benefit which may derive from screening measures.

Importance of the Phenomenon

In 2014, the thyroid cancer incidence rate in the USA was 14.3 per 100,000, a significant increase in comparison to 1975, when the incidence rate was 4.9 per 100,000. However, data for the period 2009 to 2013, available through the Surveillance Epidemiology End-Result (SEER) Program, show that the mortality rate has remained stable at 0.5 deaths per 100,000 person years. Most thyroid cancers have a favourable prognosis. Papillary thyroid carcinoma represents 70-80% of all thyroid cancers, and survival rate at 10 years is 93%. Follicular thyroid carcinoma represents 10-15% of all thyroid cancers and survival rate at 10 years is 85%. Treatment is similar for both tumours.

Cancer Detection

The USPSTF found inadequate evidence to estimate the accuracy of palpation or ultrasound as a screening test for thyroid cancer in asymptomatic persons.

Benefits of early detection and treatment

The USPSTF found inadequate evidence to estimate whether screening for thyroid cancer in asymptomatic persons using palpation or ultrasound improves health outcomes. However the magnitude of the benefit, if any, must be very small, based on the following considerations: the relative rarity of thyroid cancer; the apparent lack of difference in outcomes between patients who are treated and patients who are only monitored; the observed lack of change in mortality over time after the introduction of a screening program.

Harms of early detection and treatment

The USPSTF found adequate evidence to establish as at least moderate the harm derived from screening and treatment (overdiagnosis, overtreatment and post-surgical complications).

USPSTF Assessment

The USPSTF concludes with moderate certainty that screening for thyroid cancer in asymptomatic persons results in harms that outweigh the benefits.

Important

This assessment applies to asymptomatic adults only. It does not apply to patients with risk factors for thyroid cancer, like radiation exposure, genetic disorders associated with thyroid cancer, personal or family history of thyroid cancer.

To access the complete text

<http://www.uspreventiveservicestaskforce.org/Page/Document/draft-recommendation-statement169/thyroid-cancer-screening1>