



Effective Health Care

Subclinical Hypothyroidism

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Subclinical hypothyroidism will go forward for refinement as a comparative effectiveness or effectiveness review. Although the topic was initially thought to be covered by the 2004 U.S. Preventive Services Task Force (USPSTF) recommendations for screening for thyroid disease (available at <http://www.ahrq.gov/downloads/pub/prevent/pdfser/thyrser.pdf>), those recommendations are being updated and therefore an evidence review is in process.
- For additional information on the populations and outcomes included in this report, please see the final key questions on the Effective Health Care Program Web site at <http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displaytopic&topicid=129>.

Topic Description

- Nominator:** Health care professional association
- Nomination Summary:** The nominator is interested in the benefits and harms of treating non-pregnant adults with subclinical hypothyroidism vs. watchful waiting.
- Key Questions from Nominator:**
1. What are the benefits and harms of treating patients with subclinical hypothyroidism vs. watchful waiting?
 2. If a patient is asymptomatic, is there benefit from the patient perspective for treatment?
 3. What are the potential harms from treatment and non-treatment?

Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- This topic was found to be addressed by an in-process update to the 2004 AHRQ report titled *Screening for Thyroid Disease*. The key questions for this update include:
 - 1a. Does screening for sub-clinical thyroid dysfunction reduce morbidity or mortality?
 - 1b. Does screening high-risk groups for sub-clinical thyroid dysfunction reduce morbidity or mortality?
 2. What is the yield of screening with a TSH test? Since the prevalence of high and low TSH test

results is well-established, it is not therefore recommended that this question be updated.

3. What are the harms of screening?
4. Does treatment make a difference in morbidity or mortality when sub-clinical hypothyroidism or hyperthyroidism is detected by screening?
5. What are the harms of treatment of sub-clinical hypothyroidism and sub-clinical hyperthyroidism?

- In addition, this topic has significant overlap with a 2007 Cochrane review titled *Thyroid Hormone Replacement for Subclinical Hypothyroidism*, which is scheduled to be updated in 2009.
 - Villar HCCE, Saconato H, Valente O, Atallah ÁN. Thyroid hormone replacement for subclinical hypothyroidism. *Cochrane Database of Systematic Reviews* 2007, Issue 3. Art. No.: CD003419. DOI: 10.1002/14651858.CD003419.pub2.
- Both the AHRQ and the Cochrane review listed above concluded that further large randomized controlled studies are necessary in order to evaluate the effectiveness of treatment for subclinical hypothyroidism. A brief literature scan identified 11 new trials that have been published since 2006. Four related clinical trials were identified on clinicaltrials.gov. Given that the 2004 USPSTF recommendations are being updated, a review covering the most recent evidence is in process.