

PEARLS Practical Evidence About Real Life Situations

Lack of evidence to support treatment decisions for subclinical hypothyroidism

Clinical question	Should thyroxine replacement be prescribed for patients with subclinical hypothyroidism?
Bottom line	Trials comparing thyroxine replacement for subclinical hypothyroidism with placebo or no treatment showed no difference in survival or decreased cardiovascular morbidity. Data on health-related quality of life and symptoms did not demonstrate significant differences between intervention groups. Some evidence indicates thyroxine replacement improves some parameters of lipid profiles and left ventricular function. Clinical judgement and patient preference is still best when deciding treatment for subclinical hypothyroidism.
Caveat	Many studies had participants with prior thyroid dysfunction and the studies were small with limited follow-up. Only 2 population-based studies were included. Other studies were in outpatient clinic populations. All bar 3 studies had a mean patient age of 35 years.
Context	The introduction of sensitive assays to determine thyroid stimulating hormone (TSH) concentrations has increased the number of newly diagnosed cases of subclinical hypothyroidism. Subclinical hypothyroid disease is the most common condition found during thyroid function screening.
Cochrane Systematic Review	Villar HCCE et al. Thyroid hormone replacement for subclinical hypothyroidism. Cochrane Database of Systematic Reviews 2007, Issue 3. Article No. CD003419. DOI: 10.1002/14651858. CD003419.pub2. This review contains 12 trials involving 350 participants.
PEARLS 103, October 2008, written by Brian R McAvoy	
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PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are funded by the New Zealand Guidelines Group.

PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.

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