

## Supplementary material

### Supplementary material: Search strategy

Electronic searches will be conducted in the following databases from inception to 1 January 2026:

- MEDLINE (via PubMed)
- Embase
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Scopus

#### 1. MEDLINE (PubMed)

("Levothyroxine"[Mesh] OR levothyroxine OR "L-thyroxine" OR thyroxine)

AND

(liquid OR solution OR "oral solution" OR softgel OR "soft-gel" OR capsule OR tablet)

AND

("Thyroidectomy"[Mesh] OR thyroidectomy OR athyreotic OR "athyreotic state" OR "thyroid cancer" OR "differentiated thyroid carcinoma" OR "benign thyroid disease")

AND

("Thyroid-Stimulating Hormone"[Mesh] OR TSH OR "thyroid stimulating hormone" OR "thyroid function" OR "thyroid hormone profile" OR T3 OR T4))

#### 2. Embase (via Elsevier)

('levothyroxine'/exp OR levothyroxine OR 'l-thyroxine' OR thyroxine)

AND

(liquid OR solution OR 'oral solution' OR softgel OR 'soft-gel' OR capsule OR tablet)

AND

('thyroidectomy'/exp OR thyroidectomy OR athyreotic OR 'athyreotic state' OR 'thyroid cancer'/exp OR 'differentiated thyroid carcinoma' OR 'benign thyroid disease')

AND

('thyroid stimulating hormone'/exp OR tsh OR 'thyroid function' OR 'thyroid hormone profile' OR t3 OR t4)

#### 3. Cochrane Central Register of Controlled Trials (CENTRAL)

(levothyroxine OR "L-thyroxine" OR thyroxine)

AND

(liquid OR solution OR "oral solution" OR softgel OR "soft-gel" OR capsule OR tablet)

AND

(thyroidectomy OR athyreotic OR "athyreotic state" OR "thyroid cancer" OR "differentiated thyroid carcinoma" OR "benign thyroid disease")

AND

(TSH OR "thyroid stimulating hormone" OR "thyroid function" OR T3 OR T4)

#### **4. Scopus**

TITLE-ABS-KEY(levothyroxine OR "L-thyroxine" OR thyroxine)

AND

TITLE-ABS-KEY(liquid OR solution OR "oral solution" OR softgel OR "soft-gel" OR capsule OR tablet)

AND

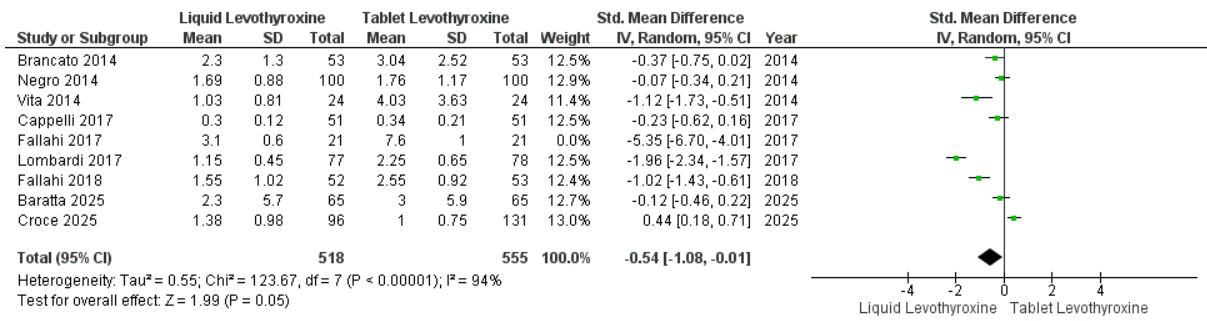
TITLE-ABS-KEY(thyroidectomy OR athyreotic OR "athyreotic state" OR "thyroid cancer" OR "differentiated thyroid carcinoma" OR "benign thyroid disease")

AND

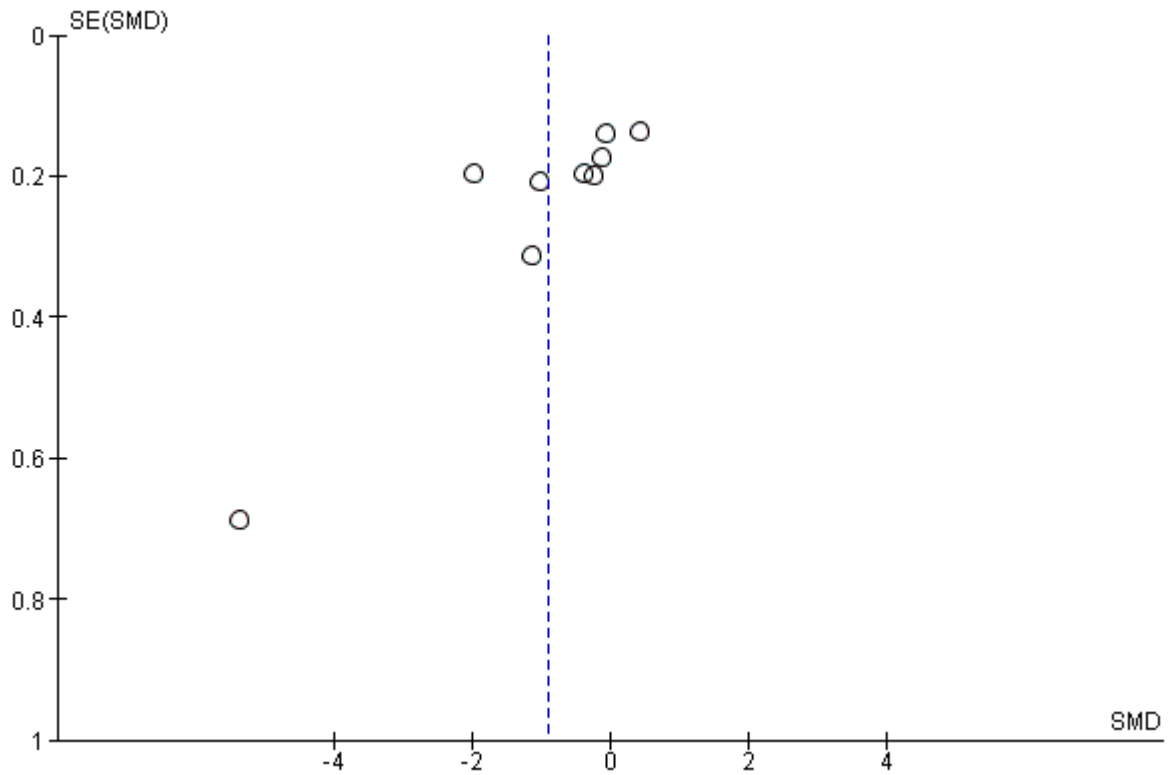
TITLE-ABS-KEY(TSH OR "thyroid stimulating hormone" OR "thyroid function" OR "thyroid hormone profile" OR T3 OR T4)

Reference lists of included studies will be hand-searched for additional eligible studies.

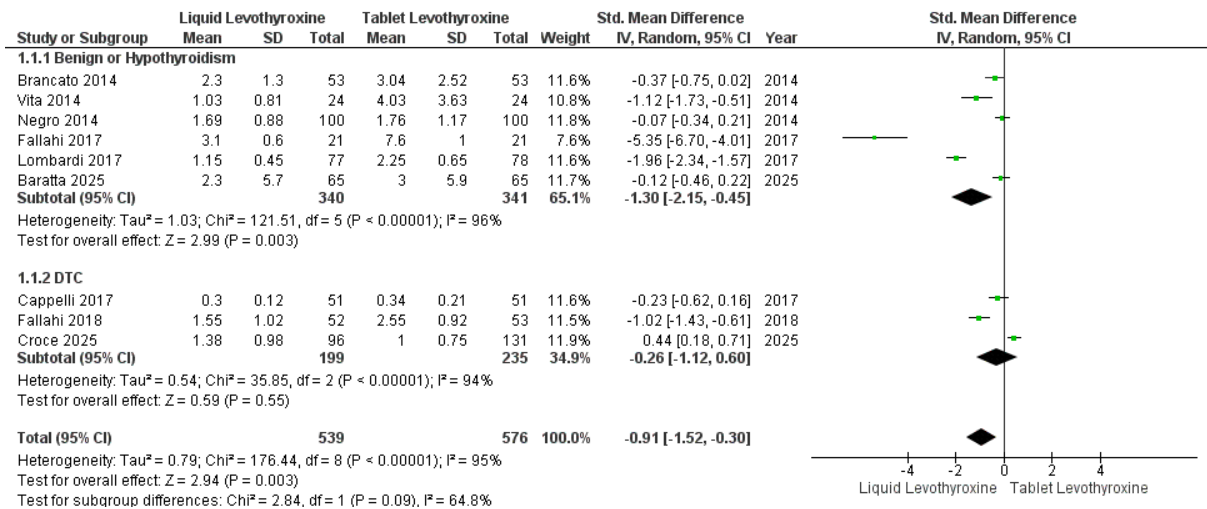
No language restrictions will be applied.



Supplementary Figure 1 TSH sensitivity plot.



Supplementary Figure 2 TSH Funnel plot.



Supplementary Figure 3 TSH subgroup DTC plot.