THE UNIVERSITY OF WESTERN AUSTRALIA

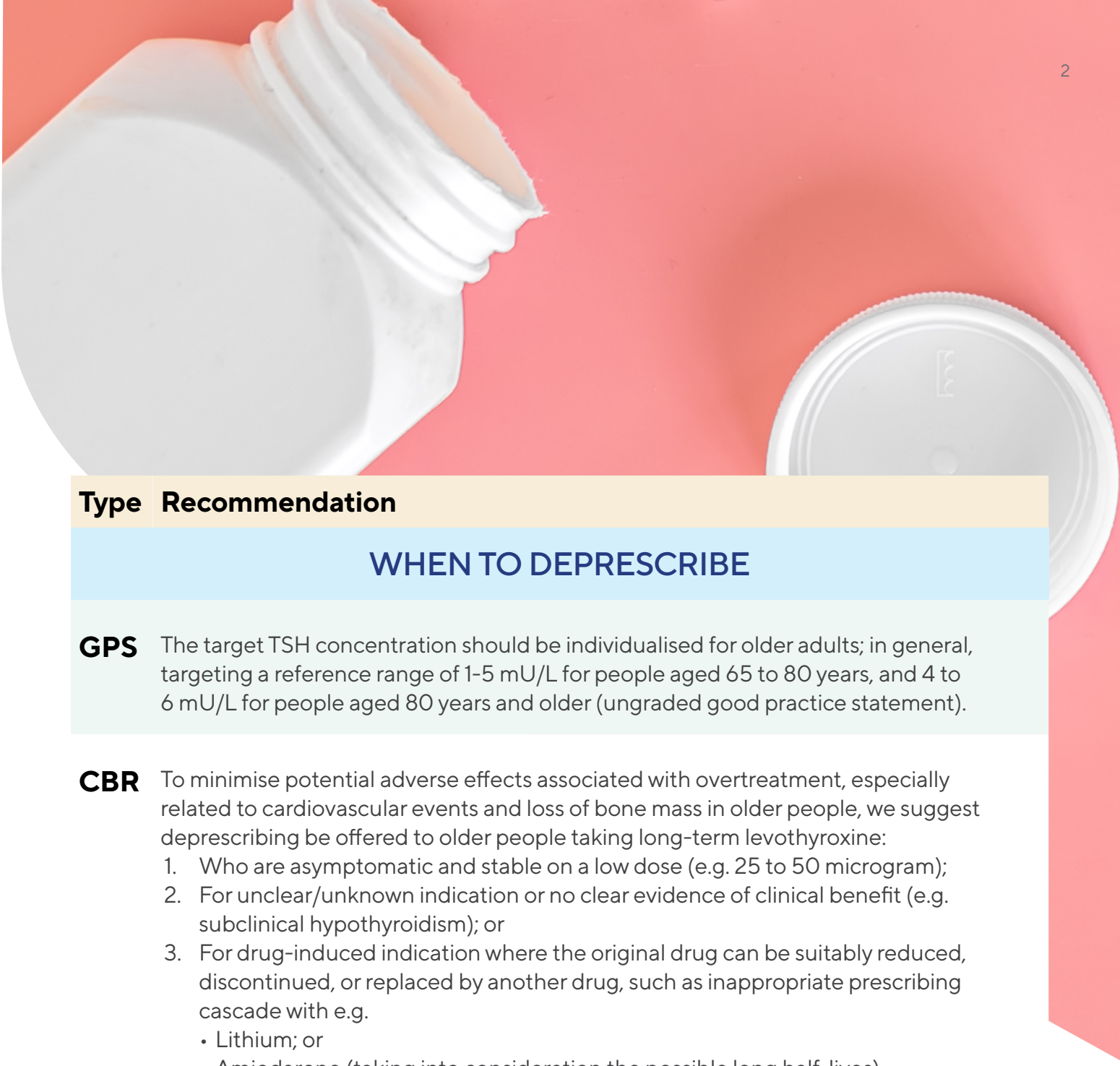
WESTERN AUSTRALIAN CENTRE FOR HEALTH AGEING

CENTRE FOR OPTIMISATION OF MEDICINES

LEVOTHYROXINE

Deprescribing in older people: A clinical practice guideline

dRx™



Type	Recommendation
	WHEN TO DEPRESCRIBE
GPS	The target TSH concentration should be individualised for older adults; in general, targeting a reference range of 1-5 mU/L for people aged 65 to 80 years, and 4 to 6 mU/L for people aged 80 years and older (ungraded good practice statement).
CBR	To minimise potential adverse effects associated with overtreatment, especially related to cardiovascular events and loss of bone mass in older people, we suggest deprescribing be offered to older people taking long-term levothyroxine: 1. Who are asymptomatic and stable on a low dose (e.g. 25 to 50 microgram); 2. For unclear/unknown indication or no clear evidence of clinical benefit (e.g. subclinical hypothyroidism); or 3. For drug-induced indication where the original drug can be suitably reduced, discontinued, or replaced by another drug, such as inappropriate prescribing cascade with e.g. • Lithium; or • Amiodarone (taking into consideration the possible long half-lives).
GPS	Deprescribing decisions should be made in consultation with the person and their GP and/or endocrinologist to ensure it aligns with their preferences, goals and overall treatment plans (ungraded good practice statement).

CBR, consensus-based recommendation; GPS, good practice statement

ONGOING TREATMENT

CBR We suggest continuing long-term levothyroxine for autoimmune conditions (e.g. Hashimoto thyroiditis), radioactive iodine treatment and thyroidectomy where the benefits of continuing treatment potentially outweigh the potential risks, with periodic re-assessment of thyroid function every 6 to 12 months.

CBR If the serum TSH concentration increases (primary hypothyroidism) or if the free serum T4 concentration falls below the reference range without an elevated TSH (central hypothyroidism) during deprescribing, we suggest restarting levothyroxine at the previously tolerated dose.

HOW TO DEPRESCRIBE

CBR We suggest reducing the dose by approximately 50% if the baseline TSH concentration is within an acceptable range. After six weeks, if the TSH concentration remains within an acceptable range, discontinue the thyroid therapy completely. After another six weeks, if the TSH concentration remains within an acceptable range, measure the free thyroxine (T4) level. If the free T4 concentration is within an acceptable range, there is no need to restart thyroid hormone therapy. After a further six weeks, measure the final TSH concentration.

MONITORING

CBR We suggest closely monitoring for potential symptoms of hypothyroidism (e.g. fatigue, weight gain, cold intolerance, poor mental concentration, mood changes) during deprescribing by advising people to report symptoms to their healthcare providers.

We suggest reviewing TSH and/or free serum T4 concentrations six weeks after each dose adjustment, as levothyroxine has a long half-life and TSH concentrations take 6-8 weeks to stabilise; however, this review should be tailored to individual factors, such as the patient's preferences, response, and tolerance to deprescribing.

CBR, consensus-based recommendation; GPS, good practice statement

Note:

Evidence is drawn from studies involving participants aged ≥ 65 years and over.

Chronological age may not reflect health status. Among Aboriginal and Torres Strait Islander peoples, individuals aged 50 years and over are considered older.

Statements in this guideline are not prescriptive and should be applied using a shared decision-making approach.

Access to healthcare services may vary and can influence healthcare decisions.

Medicine needs may change over time; medicines may be restarted if clinically necessary, based on shared decision-making and informed consent.

For supporting evidence and further information, please visit **deprescribing.com** or scan the QR code:

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