

Liothyronine 20microgram Tablets
as an add-on treatment for refractory hypothyroidism despite adequate
monotherapy with levothyroxine

Commissioning Statement

Fylde and Wyre Clinical Commissioning Group has agreed not to fund the prescribing of Liothyronine as an add-on treatment for refractory hypothyroidism despite adequate monotherapy with levothyroxine.

There is insufficient evidence to demonstrate efficacy in the above setting, availability of the drug is limited and adverse events are more prevalent than for levothyroxine monotherapy

This medicine is classified as BLACK for this indication

Commissioning Statement

Fylde and Wyre Clinical Commissioning Group has agreed to fund the prescribing of Liothyronine by secondary or tertiary care specialists for the treatment of acute conditions where thyroid replacement is needed rapidly, for a limited period and/or where a drug with shorter half-life is required.

Liothyronine is recommended for prescribing by secondary or tertiary care specialists in the following settings:

- preceding ablation therapy with radioactive iodine
- for the treatment of coma of myxedema, the management of severe chronic thyroid deficiency and hypothyroid states occurring in the treatment of thyrotoxicosis.*
- treatment of thyrotoxicosis as an adjunct to carbimazole to prevent sub-clinical hypothyroidism developing during treatment.*
- treating severe and acute hypothyroid states because of its rapid and more potent effect, thyroxine sodium is normally the drug of choice for routine replacement therapy.*

* = licensed indication

Specialist knowledge, intensive monitoring and specific dose adjustments are necessary. Liothyronine must be supplied by the hospital for the duration of the treatment course.

This medicine is classified as RED for this indication

Supporting information:

For the RED recommendations, liothyronine is either licensed or already being used in the specialist setting and choice of agent is driven by the drugs shorter half-life and more rapid onset of action. Therefore, the main body of the review focuses on liothyronine as an add-on treatment for refractory hypothyroidism despite adequate monotherapy with levothyroxine. The clinical evidence for liothyronine as an add-on treatment for refractory hypothyroidism despite adequate monotherapy with levothyroxine is informed by 11 randomised controlled clinical trials, 9 of which fail to show a benefit for add-on treatment.

- Liothyronine is not licensed to be prescribed alongside levothyroxine as an add-on treatment for refractory hypothyroidism despite adequate monotherapy with levothyroxine
- In the UK it is estimated that the annual incidence of primary hypothyroidism is 3.5 per 1000 population for women and 0.6 per 1000 population for men.
- In Lancashire the estimated prevalence of hypothyroidism is 5.9% (based on ePACT data).
- There is evidence to suggest that between 5 and 10% of patients that receive levothyroxine for hypothyroidism with normal serum TSH levels have persistent symptoms.
- The potential cost pressure across the Lancashire health economy if all patients with refractory hypothyroidism receive combination treatment is between £4,035,672 and £18,840,080 per year.

Guidelines:

- The British Thyroid Association, the Royal College of Physicians, the European Thyroid Association and the National Institute Health and Care Excellence clinical knowledge summary either do not recommend combination therapy or mandate specialist use only and acknowledge that research needs to demonstrate greater efficacy before a more positive recommendation can be made.

For details around the colour classification system please refer to the website of the Lancashire Medicines Management Group at: <http://www.lancsmmq.nhs.uk/>