North Central London
Joint Formulary Committee

Liothyronine in Primary Hypothyroidism: Interim Position Statement

Prescribers in primary or secondary care should not initiate liothyronine for any new patient.

Patients who are newly initiated on liothyronine treatment in private health clinics should have ongoing prescriptions provided by their private doctor. NHS GPs should not take on prescribing for these patients.

Individuals currently prescribed liothyronine should be reviewed by a consultant NHS endocrinologist with consideration given to switching to levothyroxine where clinically appropriate.

Background

- Levothyroxine (T4) is the first choice drug when treating primary hypothyroidism.
- UK, European and American guidelines found no consistently strong evidence for the superiority of levothyroxine + liothyronine (T3) combination therapy over monotherapy with levothyroxine.
- NHS England [link] recommend individuals currently prescribed liothyronine should be reviewed by a consultant NHS endocrinologist with consideration given to switching to levothyroxine where clinically appropriate.
- An NCL implementation plan, involving the NCL Joint Formulary Committee informed by national guidance (NHS England and the Regional Medicines Optimisation Committee), is being formed regarding arrangements for on-going prescribing of liothyronine. This should be for individuals who, in exceptional circumstances, have an on-going need for liothyronine as confirmed by a consultant NHS endocrinologist.
- Liothyronine monotherapy is not recommended.
- Levothyroxine + liothyronine combination products (e.g. Armour® Thyroid) are not recommended
- T3 + T4 combination therapy is considerably more expensive than levothyroxine:

Preparation	Annual cost
Levothyroxine 200 mcg daily	£25
Levothyroxine 200 mcg daily + liothyronine 10-20 mcg daily	£1620 – £3190

Source: NHS Electronic Drug Tariff [Accessed 29 June 2018]. Levothyroxine 100mcg x 28 =£0.96 (ex. VAT). Liothyronine 20mcg x 28 = £244.72 (ex. VAT). The European Thyroid Association recommend starting combination therapy in an L-T4/L-T3 dose ratio between 13:1 and 20:1 by weight (L-T4 once daily, and the daily L-T3 dose in two doses)

- This position statement will be updated once the implementation plan has been finalised.
- This decision does not affect other uses of liothyronine, such as for patients with thyroid cancer.

References

1) NHS England / NHS Clinical Commissioners. Items which should not routinely be prescribed in primary care: Guidance for CCGs. NHS England Gateway Publication 07448. Available at: https://www.england.nhs.uk/wp-content/uploads/2017/11/items-which-should-not-be-routinely-precscribed-in-pc-ccg-guidance.pdf [Accessed 18 July 2018]
2) NHS Electronic Drug Tariff. NHS Business Service Authority. Available at: https://www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/drug-tariff [Accessed 29 June 2018]
3) ETA Guidelines: The Use of L-T4 + L-T3 in the Treatment of Hypothyroidism, 2012. Eur Thyroid J 2012;1:55–71. Available at: http://www.thyroiduk.org.uk/tuk/guidelines/ETA%202012%20Guidelines%20The%20use%20of%20LT4%20and%20LT3%20in%20the%20treatment%20of%20hypothyroidism.pdf [Accessed 18 July 2018]

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Groups which were consulted and have given approval:	NCL Joint Formulary Committee
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