Minister for Public Health, Sport and Wellbeing
Joe FitzPatrick MSP

Scottish Government
Riaghaltas na h-Alba
gov.scot

PE1463/TTTT
Correspondence from the Minister for Public Health Sport and Wellbeing to the Health and Sport Committee of 23 May 2019

T: 0300 244 4000
E: scottish.ministers@gov.scot

Health and Sport Committee
T3.60
The Scottish Parliament
EH99 1SP

23 May 2019

Thyroid and Adrenal Testing Diagnosis and Treatment

Dear Lewis

Thank you for your letter of 3 April 2019 and I apologise for the delay in responding to you. You asked for an update on the ongoing work since my speech to parliament on 4 December 2018.

We value the important contribution the Committee has made to understanding and raising awareness of this complex issue.

As I said in the chamber, the Scottish Endocrine Interest Group, led by the Chief Medical Officer's Specialty Advisor for Endocrinology, is implementing improvements to ensure a more consistent approach is adopted across Scotland. This includes improving communications around diagnosis and access to treatments

I am pleased to advise that, in March 2019, the Scottish Clinical Biochemistry Network published guidance for thyroid testing. This guidance was peer reviewed and is now available on the network website using the following link: https://www.clinicalbiochemistry.scot.nhs.uk/wp-content/uploads/2019/03/2019-03-22-SCBN-Guidance-on-Thyroid-Testing-v.1.pdf. This guidance is also reproduced in Section B.

We will also continue to follow the development of the NICE guideline on thyroid disease, which is due to be published later this year.

At the debate, I made a commitment to write to all Health Boards in Scotland to clarify the Scottish Government position on T3 prescribing. I therefore sent a letter out on 13th February 2019, after seeking advice from the endocrine specialist community, which is reproduced in Annex C. The letter asked boards to confirm that they were committed to:

1. a holistic and safe review of patients prescribed T3 which is undertaken by a healthcare professional based on the needs of the individual paitent.

2. clinicians initiating and continuing T3 where it is safe and clinically appropriate to do so, as agreed with a consultant who specialises in endocrinology.

All boards replied, confirming that they were committed to this. At the debate, I stated that “If people cannot access the treatment that we all think and their endocrinologist says that they should get, I ask members to please write to me”. Since then, I have received several letters from patients who have queried the way in which T3 initiation requests and appeals policy works in their board. We are currently working with relevant boards to better understand their processes.

I would also like to reiterate that the Scottish Government worked with the Department of Health and Social Care in the UK Government on the introduction of UK-wide Health Service Medical Supplies (Costs) Act. Since the debate in December 2018, the Scottish Drug Tarriff price for T3 has fallen by around 15%.

Finally, I wish to see a consistent prescribing policy towards T3 being introduced throughout Scotland and the application of this is part of our committment towards safe and effective treatment for patients diagnosed with primary hypothyroidism.

JOE FITZPATRICK

Scottish Clinical Biochemistry Network Guidance on Thyroid Testing

1. **Routinely available biochemical tests of thyroid function include Thyroid Stimulating Hormone (TSH), free T4 (FT4) and tri-iodothyronine (T3/FT3)**

Thyroid peroxidise antibody (TPOAb), Thyroid Receptor antibody (TRAb), thyroglobulin (TGL) and calcitonin are also available for testing in specific clinical situations.

Thyroid function testing is undertaken:

1. **to confirm diagnosis**
    a. primary hypothyroidism
    b. thyrotoxicosis
    c. euthyroid
2. **to monitor patients on treatment**
    a. thyroxine replacement
    b. anti-thyroid medication (carbimazole or propylthiouracil)
3. **in clinical situations to screen for thyroid disease**
    a. Patients with other autoimmune conditions e.g. type 1 diabetes mellitus
    b. Patients with Trisomy 21, Turner's syndrome
    c. Patients on drugs that may upset thyroid function e.g. lithium, amiodarone
    d. Investigation of infertility, hyperlipidaemia, osteoporosis, tachyarrhythmia
    e. Patients with goitre
    f. Patients with hyperthyroidism previously treated with radioactive iodine

4. Neonatal Screening

A review of Keele 2016-2017 data suggests that there are differences amongst laboratories in the TFT testing strategy undertaken. Ideally this should be standardised across Scotland.

All tests are available but could be selectively applied in diagnostic, screening and monitoring situations.

All patients who are pregnant or who are <16 years should have both TSH and FT4 measured.

Where TSH only is measured, there should be an opportunity for reflective addition of FT4 or T3/FT3.

Clinical Scenario		TSH	FT4	T3/FT3
To confirm diagnosis	Primary hypothyroidism	yes	yes	
	Thyrotoxicosis	yes	yes	yes
	Euthyroid	yes	yes	
To monitor patients on treatment	Thyroxine replacement – primary thyroid failure	yes		
	Thyroxine replacement – thyroid failure secondary to pituitary disease	yes	yes	
	Anti-thyroid medication (carbimazole or propylthiouracil)	yes	yes	Yes (if TSH <0.01 and FT4 within reference limits)
In clinical situations to screen for thyroid disease	Patients with other autoimmune conditions e.g. type 1 diabetes mellitus	yes		
	Patients with Trisomy 21, Turner's syndrome	yes		
	Patients on drugs that may upset thyroid function e.g. lithium, amiodarone	yes	yes	
	Investigation of infertility	yes	yes	
	Investigation of hyperlipidaemia, osteoporosis, tachyarrhythmia	yes		
	Patients with goitre	yes		
	Patients with hyperthyroidism previously treated with radioactive iodine	yes	yes	
Neonatal Screening		yes		

Section B

1. **Indications for TRAb measurement**

   To investigate cause of new diagnosis of thyrotoxicosis

   In pregnancy, where there is current, or history of,

   thyrotoxicosis In neonates, where mother has TRAbs

2. **Indications for TPOAb measurement**

   To investigate cases of subclinical hypothyroidism (TSH raised with normal FT4, on two occasions, measured six months apart)

3. **Indications for TGL measurement**

   Follow-up monitoring of established thyroid cancer, post total thyroidectomy

   Neonatal hypothyroidism

4. **Indications for calcitonin measurement**

   Diagnosis and monitoring of medullary carcinoma of thyroid

5. **References**

UK Guidelines for the Use of Thyroid Function Tests 2006

A common finding of covert hypothyroidism at initial clinical evaluation of hyperlipidaemia C J Glueck et al Clin Chem Acta 1991; 113-122

Incidence of asymptomatic hypothyroidism in new referrals to hospital lipid clinic O'Kane et al ACB 1991;28:509-511

NOTE

This guideline is not intended to be construed or to serve as a standard of care. Standards of care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and patterns of care evolve. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. This judgement should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available. It is advised, however, that significant departures from the national guideline or any local guidelines derived from it should be fully documented in the patient's case notes at the time the relevant decision is taken.

ANNEX C

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gov.scot

T: 0300 244 4000
E: scottish.ministers@gov.scot

Distribution: NHS Board Directors of Pharmacy
NHS Board ADTC Chairs
Scottish Medicines Information Network
Scottish Prescribing Advisors Association (SPAA)
IJB's/CFO/CO's
NHS Board Medical Directors

Your ref:
Our ref:

13th February 2019

Dear colleague

I am writing to you regarding the role of liothyronine (T3) and levothyroxine (T4), in the treatment of patients with primary hypothydroidism, in your health board.

The Scottish Government is fully committed to person centred clinical care throughout NHS Scotland. In 2015, the British Thyroid Association issued guidance on the role of T3 and T4 in the treatment of primary hypothyroidism. I have been reassured that the Scottish endocrine clinical community are fully supportive of the guidance which is that:

1. T4 monotherapy should be considered first line in the treatment of primary hypothyroidism as it remains the safest and most effective treatment for most patients.

2. the use of combination T4 and T3 is a contentious issue and should only be initiated by an endocrinologist.

3. combination therapy should be used on an individualised 'trial' basis in compliant T4-treated hypothyroid patients who have persistent complaints despite reference range serum TSH values, provided they have received adequate chronic disease support and associated autoimmune diseases have been ruled out.

The British Thyroid Association guidance is predicated on the use of combination T3/T4 therapy for primary hypothyroidism although it is recognised that some patients are being prescribed T3 as monotherapy.

The guidance also highlights that *'Clinicians have an ethical responsibility to adhere to the highest professional standards of good medical practice rooted in sound evidence. This includes not prescribing potentially harmful therapies without proven advantages over existing treatments'.*

ANNEX C

In November 2017, the NHS Boards and Scottish Government Effective Prescribing Programme sent a letter to you asking you to consider the role of T3 in formularies and for prescribing to patients. The letter emphasized that any review of a patient prescribed T3 should be carried out in a holistic and safe manner as this is a clinical decision to be taken by the healthcare professional based on the needs of the individual patient. Patients have reported that review of T3 has not been done in this manner and have written to raise this issue with Scottish Ministers and officials.

As you may know, the Scottish Parliament Public Petitions Committee last debated the subject of T3 and its place in treatment on the 4th December 2018. I restated there that it is the Scottish Government's position that an endocrinologist can recommend prescribing T3 to the referring GP if it is considered to be the safest and most effective course of treatment for an individual, or recommend prescribing T3 for an individual patient if their symptoms are not adequately controlled with T4. In writing to you today, I am emphasizing that this is still the government's postion.

I appreciate that the issue of T3 prescribing in NHS Scotland is a complex issue but would reiterate that the Scottish Government wants patients to access safe treatment options. During the debate, I urged patients to discuss treatment options with their healthcare professional. Patient safety is paramount and I have asked individuals to write to me with their experiences.

I would therefore be grateful if you confirm in writing by Wednesday 27th February 2019 that your Health Board is committed to:

1. **a holistic and safe review of patients prescribed T3 which is undertaken by a healthcare professional based on the needs of the individual paitent.**

2. **clinicians initiating and continuing T3 where it is safe and clinically appropriate to do so, as agreed with a consultant who specialises in endocrinology.**

We will continue to work together across the Government and health and social care services to make the difference that we all want for people who are impacted by thyroid conditions.

Yours sincerely,

Joe FitzPatrick