Name
Address Line 1
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Town/City
Post Code

October 2016

Dear Healthcare Professional (CCG)

Levothyroxine from Teva UK Limited

I am pleased to announce that following formulation changes, Teva UK Limited will reintroduce 50mcg and 100mcg levothyroxine tablets. These presentations will be complemented by three additional strengths – 12.5mcg, 25mcg and 75mcg tablets. The 12.5mcg and 75mcg presentation are completely new strengths to Teva. All five presentations will be introduced to the market w/c 17th October 2016.

These formulation changes have resulted in our version of levothyroxine tablets being lactose free, meaning that they are suitable for patients who have either lactose or galactose intolerances.

The 12.5mcg and 75mcg presentations mean that patients' dosage control can be improved without the need to break or split tablets where appropriate.

The strengths, presentations and pack sizes for all the Teva marketed levothyroxine tablets are listed below for your information. I have also enclosed a copy of the current Abbreviated Prescribing Information and the SmPCs can be found on the Teva UK website (www.tevauk.com)

Name	Strength	Presentation	Pack size
Levothyroxine	12.5mcg	Tablets	28
Levothyroxine	25mcg	Tablets	28
Levothyroxine	50mcg	Tablets	28
Levothyroxine	75mcg	Tablets	28
Levothyroxine	100mcg	Tablets	28

You should be aware of the following information about Teva levothyroxine:

Advice for healthcare professionals:

- Clinical studies conducted in volunteers have confirmed that the reformulated Teva levothyroxine tablets produce levels of thyroid hormone in the bloodstream that are equivalent to those produced by the brand leader (UK reference) product.

- The formulation and manufacturing process improvements provide assurance that equivalent systemic availability will apply to future batches of product, and that this will be maintained over the duration of the shelf-life. Assurance of consistency in performance is therefore provided.

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- If patients are changing between products, they can be switched to Teva levothyroxine at the same dose as the levothyroxine product they are currently taking.
- Lactose, converted in the body to galactose, has been removed from the formulation. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption can now take this medicine.
- The prescriber should be aware that patients should continue to be monitored at intervals for clinical signs and symptoms of adequate thyroid hormone replacement, together with measurement of TSH levels. Patients can display differences in thyroid hormone response, and can require adjustments in dose, for reasons that are unrelated to pharmaceutical properties of the product.

Should you have any queries, or need any more information about this medicine, please contact our Medical Information department via medinfo.uk@tevauk.com or 020 7540 7117.

Yours faithfully,

Bruno Barcelos
Senior Director, Generics

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Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Teva UK Limited on 0207 540 7117 or medinfo@tevauk.com

Please refer to the Summary of Product Characteristics (SmPC) for full details of Prescribing Information.

Levothyroxine Tablets Abbreviated Prescribing Information

Presentation: Levothyroxine tablets contain 12.5mcg, 25mcg, 50mcg, 75mcg and 100mcg of levothyroxine sodium. **Indications:** Control of hypothyroidism, congenital hypothyroidism in infants, acquired hypothyroidism in children and juvenile myxoedema. **Dosage and administration:** For oral administration. Do not crush or disperse in water. Not recommended for children under 5 years of age; consider oral solution. Take on empty stomach at least 30 minutes and preferably 1 hour before the first meal of the day. In younger patients, and in the absence of heart disease, a serum Levothyroxine (T4) level of 70 to 160 nanomols per litre, or a serum thyrotrophin level of less than 5 milli-units per litre should be targeted. A pre-therapy ECG should be performed. Refer to SmPC for full dosage and administration information. *Adults*: Initial dose: 50mcg to 100mcg daily. For adults over 50 years of age, initial dose should be 50mcg daily. Adjust at three to four week intervals by 50mcg until normal metabolism is steadily maintained. *Adults over 50 years with cardiac disease*: 25mcg daily or 50mcg on alternate days. Increase daily dosage by 25mcg every four weeks until stable thyroxine levels are attained. *Children*: Maintenance dose is generally 100mcg to 150mcg per m^2 body surface area. Monitor regularly to ensure correct dose. *Acquired hypothyroidism in children and Infants*: Initial dose: 12.5mcg to 50mcg daily. Increase dose gradually every two to four weeks until the full replacement dose is reached. *Juvenile myxoedema*: Initial dose: 25mcg daily. Adjust at two to four week intervals by 25mcg until mild symptoms of hyperthyroidism are seen and then reduce dose slightly. *Congenital hypothyroidism in infants:* For neonates and infants, initial dose is 10mcg to 15mcg per kg of body weight per day for the first 3 months. Thereafter, adjust dose according to clinical findings, thyroid hormone and TSH values. *Elderly:* Initial dose: 50mcg daily. Adjust at three to four week intervals by 50mcg until stable thyroxine levels are attained. **Contraindications:** Thyrotoxicosis, adrenal gland disorder or adrenal insufficiency, hypersensitivity to levothyroxine or to any of the excipients. **Precautions and warnings:** Increase dose gradually in patients aged over 50 years or in patients with long standing hypothyroidism to avoid sudden increase in metabolic demands. Consider corticosteroid therapy prior to treatment in patients with panhypopituitarism or other causes predisposing to adrenal insufficiency. Use with caution in patients with cardiovascular disorders (see SmPC), symptoms or ECG evidence of myocardial infarction and in older patients with greater likelihood of occult cardiac disorders. Restore patients with prolonged myxoedema gradually. There is a risk of atrial fibrillation, particularly in elderly patients. Perform ECG prior to commencing treatment, particularly in patients who have, or who are at high risk of having, cardiovascular disease in order to detect changes consistent with ischaemia. Use with caution in patients with diabetes mellitus and diabetes insipidus which may cause an increase in dosage requirements of insulin or other anti-diabetic therapy. To minimise bone loss, levothyroxine should be titrated to lowest effective level. Partial hair loss may occur in children during first few months of treatment. **Interactions:** Thyroid function tests may be affected by a number of drugs and should be taken into account when monitoring a patient's response to levothyroxine therapy. May increase the effect of anticoagulants; consider reducing the anticoagulation dosage if excessive to avoid hypoprothrombinaemia and bleeding. Treatment may require increase in dosage requirements of insulin or oral hypoglycaemic agents. The response to tricyclic anti-depressants may be accelerated; concomitant use may precipitate cardiac arrhythmias. The effects of sympathomimetic agents are also enhanced. Toxicity of digitalis is enhanced by levothyroxine; dose of digitalis may need adjusting. False low plasma concentrations have been observed with concurrent anti-inflammatory treatment and levothyroxine therapy. Levothyroxine accelerates metabolism of propranolol, atenolol and sotalol. Hypertension and tachycardia have been reported with concurrent ketamine

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administration. Amiodarone, propranolol and sertraline may decrease the effect of levothyroxine. Effects of levothyroxine may be enhanced by anticonvulsants; levothyroxine dose may need adjusting. Absorption of levothyroxine possibly reduced by antacids, proton pump inhibitors, calcium salts, cimetidine, oral iron, sucralfate, colestipol, polystyrene sulphonate, resin and cholestyramine; administration should be separated by 4-5 hours. Barbiturates, primidone and enzyme inducing drugs may increase requirements for levothyroxine in hypothyroidism. Levothyroxine plasma concentrations are possibly reduced by imatinib. Beta blockers may decrease the peripheral conversion of levothyroxine to tri-iodothyronine. Increased dosage of levothyroxine may be required when co-administered with oestrogen or oestrogen containing products such as oral contraceptives and hormone replacement therapy. Androgens and corticosteroids may decrease serum concentrations of levothyroxine-binding globulins. **Pregnancy and lactation:** Safety of levothyroxine during pregnancy has not been established. Levothyroxine is excreted in breast milk in low concentrations. Refer to SmPC for further information. **Effects on ability to drive and use machines:** No known influence on the ability to drive or use machinery. **Adverse reactions:** Symptoms may not appear until several days after administration of levothyroxine. Hypersensitivity reactions, thyroid crisis (hyperpyrexia, tachycardia, arrhythmia, hypotension, cardiac failure, jaundice, confusion, seizure, coma). Cardiac disease may be exacerbated resulting in severe angina pectoris, myocardial infarction or sudden cardiac death. Refer to the SmPC in relation to other side effects. **Overdose:** Gross over dosage has been reported to result in a clinical state resembling thyroid storm, and in collapse and coma. In most cases, there will be no features. Symptoms of overdose include exaggeration of its side effects. Convulsions occurred in one child. The appearance of clinical hyperthyroidism may be delayed for up to 5 days. Atrial fibrillation may develop. There may be increased toxicity in those with pre-existing heart disease. Treatment: Oral activated charcoal. Take blood 6-12 hours after ingestion for measurement of the free thyroxine concentration and monitor for detection of delayed onset of hyperthyroidism. Further treatment is symptomatic. See SmPC for further information. **Price:** 12.5mcg tablets, pack of 28: £15.00; 25mcg tablets, pack of 28: £4.00; 50mcg tablets, pack of 28; £4.98. 75mcg tablets, pack of 28: £4.00; 100mcg tablets, pack of 28: £4.75 **Legal category:** POM. **Marketing Authorisation Numbers:** PL 00289/1971-3 and PL 00289/0038-9. **Marketing Authorisation Holder:** Teva UK Limited, Brampton Road, Hampden Park, Eastbourne, BN22 9AG, United Kingdom. **Job Code:** UK/MED/16/0150. **Date of Preparation:** October 2016.

UK/GEN/16/0026
Date of Preparation: July 2016

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