

## Patient information

### Information for People with Type One Diabetes Commencing on Steroids

#### Diabetes and Endocrinology

#### Type 1 Diabetes and Steroid Tablets

**This information sheet will provide information on the following:**

- What are steroids?
- Managing raised blood glucose levels.
- Diabetes treatments.
- Stopping steroid treatment.
- After care.

#### What are Steroids?

Corticosteroids (also known as steroids) are hormones that occur naturally in the body and can be manufactured for a range of medicinal uses, such as reducing inflammation. They are available as tablets, injections, creams, ointments and inhalers, and this leaflet is for people using steroid tablets.

There are a number of different types of steroids and they vary in how long a single dose lasts (from approximately eight hours to over two days).

Depending on the type of steroid you have been prescribed, you may need to take a tablet daily, several times a day or once weekly.

You may have been prescribed steroids as a short course (as short as five days), a course that gradually reduces over time or a continuous course for many years.

#### How do steroids affect blood glucose?

Steroid treatment increases the amount of glucose produced by the liver. The increased production of glucose by the liver means your blood glucose levels will rise above normal.

If you were testing your blood glucose levels before starting steroids, you may notice your blood glucose levels are raised or more difficult to control. This is called "Steroid-induced hyperglycaemia".

## **Managing raised blood glucose levels**

While taking steroids, test your blood glucose level before each meal and at bedtime. Aim for blood glucose readings of 6.0 to 10.0 mmol/L

Depending on the type and timing of the steroid treatment, you may see a pattern of high blood glucose readings during the day that reverts to single figures the next morning.

### **The symptoms of raised blood glucose levels include the following:**

- Tiredness or fatigue.
- Thirst or dry mouth.
- Frequent need to pass large volumes of urine.
- Genital thrush.
- Blurred vision.

If you experience these symptoms or have high blood glucose readings, or both, contact your family doctor (GP), promptly for advice.

### **A doctor or nurse may advise you to:**

- Drink plenty of sugar-free fluids to prevent dehydration.
- Cut down on sugary and starchy foods and drinks, as these will make the blood glucose levels higher.
- Rest.

If the blood glucose level is higher than 12.0 mmol/L on more than two occasions in a 24-hour period, your doctor or nurse may need to start or increase diabetes treatments .

If your blood glucose levels are over 15.0 mmol/L then you need to check for ketones. Ketones are easily detected by a simple urine or blood test, using strips available on prescription. The presence of both high blood glucose levels and ketones indicates a lack of insulin in your body. This can be very serious and you need to seek advice if this occurs.

If you do not have ketones testing strips at home please contact your GP or diabetes team.

## **Diabetes treatments**

You will usually need to increase your insulin dose whilst taking steroids and/or use a different type of insulin. If your blood glucose levels regularly rise above 12.0 mmol/L, you should contact your GP or diabetes clinic to arrange a review.

If your steroids are reduced or stopped, your blood glucose may fall and you will need to reduce your insulin.

Please contact your GP or diabetes team for advice if any alteration is made to your steroid dose, or your blood glucose level is increasing or falling and you want help adjusting your insulin dose.

## **Stopping steroid treatment**

As your steroid treatment is reduced or stopped, your blood glucose levels will fall and you may be at risk of hypoglycaemia (low blood glucose), commonly called “hypos”.

### **The symptoms of hypoglycaemia include:**

- Sweating heavily.
- Feeling anxious.
- Trembling and shaking.
- Tingling of the lips.
- Hunger.
- Going pale.
- Palpitations.

### **Treating a “hypo”**

- If you are able to test your blood glucose, a reading lower than 4 mmol/L will confirm you are having a “hypo”.
- If you recognise that you are having a “hypo”, treat it immediately with something that will raise your blood glucose quickly, such as 200ml of Lucozade or four large jelly babies. If you do not feel better after ten minutes, repeat this treatment.
- Once you feel better and your blood glucose has risen to 4 mmol/L or higher, have a small starchy snack such as a banana or a sandwich.

### **After care**

Continue to monitor your blood glucose levels once daily until your blood glucose levels return to normal (between 4.0 and 7.0 mmol/L. However, if your readings are higher than 12.0 mmol/L contact your doctor or nurse for advice.

It is advisable to delay having your HbA1c checked for three months, to exclude the effect of the steroid treatment. HbA1c is the long term diabetes control test which is normally done every six to twelve months.

Some people will require intermittent steroid treatment and will need increased or additional doses of insulin each time they have steroids. In this instance, keep unopened insulin in the fridge and check the expiry date before using.

## **Further Information**

### **The Diabetes Centre**

**Tel: 0151 706 2829**

**Text phone number: 18001 0151 706 2829**

### **NHS 111 Service**

**Tel: 111**

Royal Liverpool Hospital and Broadgreen Hospital

PIF 9517 V1

**Diabetes UK**

**Online: <http://www.diabetes.org.uk>**

**North West Diabetes UK**

**Tel: 01925 653281**

**Fax: 01925 653288**

**Email: [n.west@diabetes.org.uk](mailto:n.west@diabetes.org.uk)**

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**Review date: August 2020**

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