



Information for patients on long-term steroid replacement therapy (Hydrocortisone, Plenadren®, Prednisolone, Efmody®)

What is 'Sick Day Rules'?

- 'Sick day rules' are set of rules that give you guidance on how you should be adjusting your steroid medication if you become unwell (for example, if you have a 'flu' or viral illness)

What is cortisol?

- Cortisol is the body's natural steroid hormone. Cortisol is an important hormone that plays many vital roles in maintaining and regulating normal healthy body functions. It is a hormone essential for survival
- Cortisol is produced in the glands that sit on top of each of our kidneys called adrenal glands
- Cortisol is often called 'stress' hormone as it supports the body during period of stress. Cortisol is also important in regulating appetite, blood pressure, blood sugar and food metabolism

What is cortisol deficiency (aka adrenal insufficiency)?

- Cortisol deficiency is a condition where the adrenals glands are not producing adequate amount of hormone cortisol. This can be caused by several factors including previous prolonged use of steroid medication for a medical condition, disease of the adrenal glands, disease of the pituitary gland or genetic problem that prevents the adrenal glands from producing cortisol

Why am I being prescribed steroid medication?

- You are being prescribed steroid medication because you either have been found to have adrenal insufficiency or are at a very high risk of developing adrenal insufficiency or as part of treatment for an underlying inflammatory condition
- Hydrocortisone is the most commonly used steroid prescribed to patients requiring replacement therapy for adrenal insufficiency
- If you have been prescribed prednisolone or dexamethasone for more than four weeks to treat an underlying inflammatory condition, it is likely that your adrenal glands have temporarily stopped producing your own natural steroid hormone called cortisol. Therefore, you should remain on prednisolone or dexamethasone and not stop unless advised by your doctor or specialist nurse

How should I take my steroid medication?

- If you are prescribed hydrocortisone, the usual dose is 15–25 mg daily split over two or three times and taken orally. The first dose should be taken immediately on rising, the second dose at lunchtime and if you take a third dose, at tea time (and should not be taken after 17:00 hrs as this may disturb your sleep)

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- If you are prescribed Plenadren®, the usual dose is 15-25mg taken once a day, preferably in the morning upon waking up
 - If you are prescribed prednisolone, the usual dose is 3–5 mg taken once a day
 - If you are prescribed Efmody®, the usual dose is 15-25mg daily split over two times and taken orally. A larger dose is usually taken at night time right before going to sleep and should be taken at least 2 hours after any food. The second smaller dose is usually taken upon awakening and should be taken at least 1 hour before any food.
 - Steroid can be taken on an empty stomach or with food

What should I do if become unwell?

- If you become ill, your body would naturally increase the production of steroid hormones from your adrenal glands. If you have adrenal insufficiency, your adrenal glands will not be able to produce the additional cortisol that your body needs. Therefore, if you are taking replacement steroids, it is essential to mimic the natural response by increasing the dose of your steroid medication appropriately
- The table below gives you simple advice on when and how to increase your dose of steroid medication
- Remember that taking a higher dose of steroids for a short period of time whilst you are unwell is necessary and is not harmful. You do not need to change the doses of any other hormone tablets you take regularly

Travelling away from home

- It is advisable that you take twice the amount of steroid medication you need in case you have to increase your dose due to illness
- It is also useful to take hydrocortisone injection kit with you in case of emergency, especially if you are visiting remote areas. You can get this kit from your Endocrine team or your GP. If travelling abroad, you will need a letter from your doctor or specialist nurse explaining what the hydrocortisone injection kit is for
- If you need training on how to use the emergency hydrocortisone injection, please contact your key worker below

Other important advice

- It is a good idea to purchase a medical alert bracelet or necklace and carry an emergency steroid card at all times
- You can request an emergency steroid card from your Endocrine team or by downloading one from the following website: <https://www.endocrinology.org/media/3563/new-nhs-emergency-steroid-card.pdf>
- You can purchase a medical alert bracelet or necklace by visiting (online) or phoning one of the following retailers:
https://www.universalmedicalid.co.uk/cat_uk/medical-ID-bracelets-

Sick Day Rule 1

During period of illness such as:

- a. Illness with fever, or
 - b. Illness requiring complete bed rest; or
 - c. Illness requiring treatment with antibiotics
- If you are on **hydrocortisone**, double your usual daily dose
 - If you are on **Plenadren®**, switch to hydrocortisone at a dose of 20mg on rising, 10mg at lunchtime, 10mg at teatime
 - If you are on **prednisolone**, increase your dose to 10mg once daily to be taken on rising
 - If you are on **Efmody®**, continue to take your usual daily dose of Efmody® and, in addition, take 10mg of hydrocortisone three times a day (upon awakening, lunchtime, and evening)

Continue on the above increased dose for 3–5 days and resume your usual steroid medication and dose thereafter provided that you are well. If you continue to remain unwell after five days, remain on the increased dose and contact your doctor for further advice.

Sick Day Rule 2

Inject hydrocortisone intramuscularly or subcutaneously (100mg) (or in hospital, intravenously) during:

- a. periods of severe illness;
- b. persistent vomiting or diarrhoea;
- c. fasting for a procedure requiring general anaesthesia or surgery (inform your endocrinologist before surgery so that proper advice can be given to your surgeon/doctor)

Special rules

- **Pregnancy** – if you become pregnant, contact your endocrinologist for advice about your steroid medication
- **Before major physical activity** – depending on the degree of physical activity, you might benefit from taking a small dose of steroid (i.e. 2.5–5 mg of hydrocortisone) before engaging in major activity such as long distance running/marathon, major sports or dancing
- In case of major emotional stress (such as bereavement, panic attack, or other life-altering events), you could take additional small dose of hydrocortisone (5-10 mg extra daily).

Please contact your key worker or Endocrinologist if you need further advice

For any queries and advice, please contact your respective Endocrine team below:

Queen Elizabeth Hospital Birmingham

Email (preferred method): **EndocrineNursesQEHB@uhb.nhs.uk**

(we will aim to return telephone call within 3–5 working days)

Email (preferred method): **EndocrineNursesHGS@uhb.nhs.uk**

(we will aim to return telephone call within 3–5 working days)

Please use the space below to write down any questions you may have and bring this with you to your next appointment.

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