



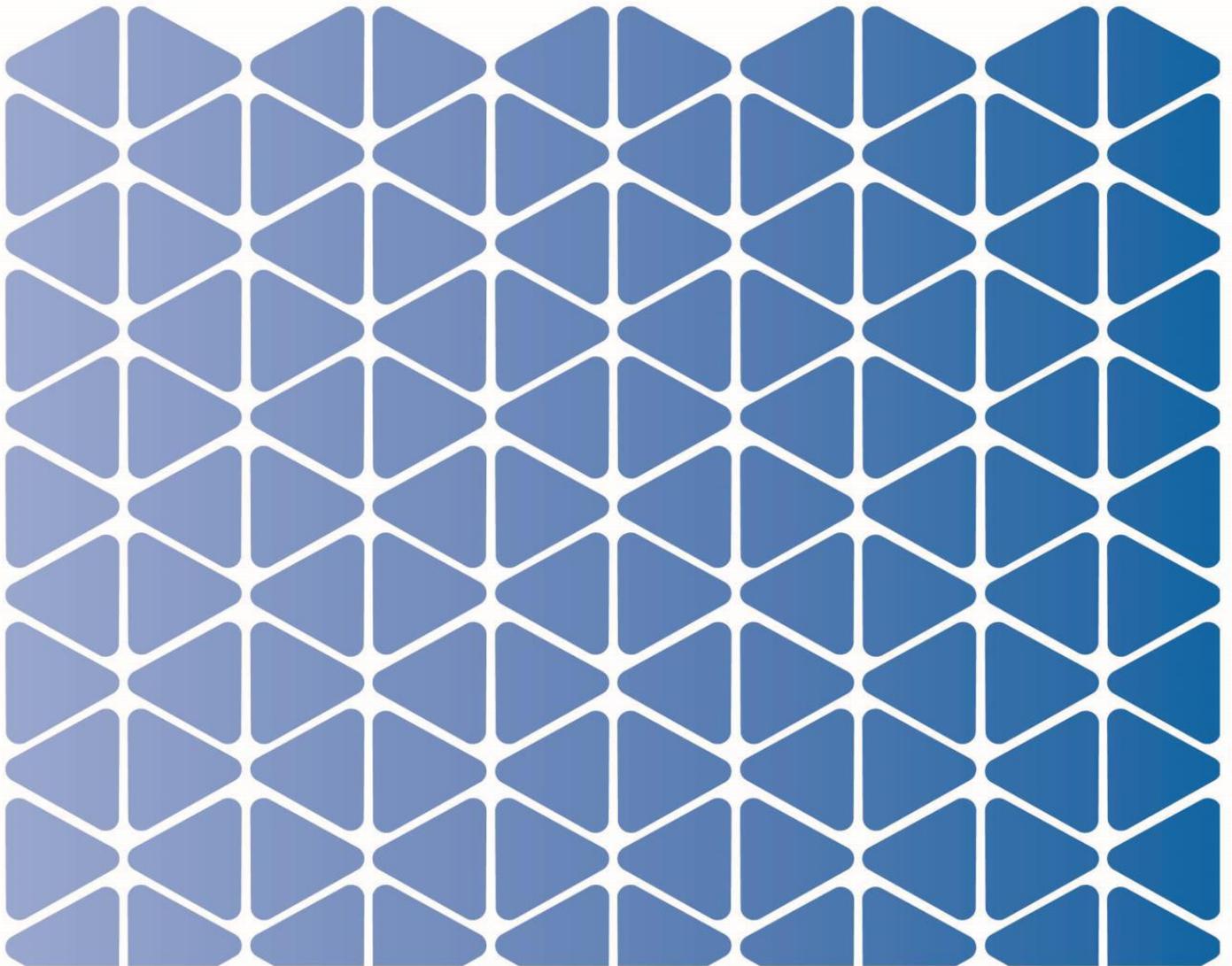
**Worcestershire  
Acute Hospitals**  
NHS Trust

## PATIENT INFORMATION

# Adrenal Insufficiency Sick Day Rule Information

**Information for patients on long-term steroid hormone  
replacement therapy  
(e.g.: Hydrocortisone, prednisolone, dexamethasone).**

## OUTPATIENT INFORMATION



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## **Adrenal Insufficiency Sick Day Rule Information**

**Information for patients on long-term steroid hormone replacement therapy (e.g.: Hydrocortisone, prednisolone, dexamethasone).**

### **What is adrenal insufficiency?**

Adrenal insufficiency means that your adrenal glands are not producing enough of a steroid hormone called cortisol. Cortisol is essential to maintain many essential life functions and your body's ability to respond to stress.

When you become unwell, or undergo a physically stressful experience such as an operation or serious injury, cortisol normally rises in the body. If your body is unable to produce enough cortisol, you can become severely unwell.

When adrenal insufficiency is permanent, medication must be taken daily for the rest of the patient's life.

### **What is acute adrenal crisis (Addisonian crisis)?**

Acute adrenal crisis is a life-threatening state caused by insufficient levels of cortisol. It can also be called adrenal crisis; addisonian crisis; acute adrenal insufficiency.

### **What is steroid medication?**

Steroid medications are a group of medications that are used to replace the effects of the hormone cortisol. They are prescribed to patients requiring replacement therapy for adrenal insufficiency.

Steroids commonly used in adrenal insufficiency include hydrocortisone, prednisolone and dexamethasone. If you have permanent adrenal insufficiency, you will need to take replacement steroid medication for the rest of your life. The first dose should be taken immediately after waking up and the last dose should be taken before 5pm as this may disturb your sleep.

### **My steroid medication and dose:**

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.....

**When I'm ill and need to double the dose of my steroid my medication. (Record dose below)**

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.....  
**What are 'sick day rules'?**

Sick day rules give you advice on how to manage your usual steroid medication if you are unwell.

**What should I do if I am ill?**

If you become ill, your body would naturally increase the amount of steroid hormones from your adrenal glands. Therefore if you are taking replacement steroids, it is essential to mimic the natural response by doubling your dose of steroid.

Taking a higher dose of steroids for a short period of time whilst you are ill is necessary and is not harmful. You do not need to change the doses of any other hormone tablets you take regularly.

The table below gives you simple advice on when and how to increase your doses of steroids.

**Recommendations for changes in dose**

**This is Sick Day Rule 1:**

<b>Sick Day Rule 1</b>	<b>Double your usual dose of steroids during:</b>
	<p>A Period of illness with fever (temperature above 37.5°C)</p> <p>An illness requiring bed rest.</p> <p>Illness requiring treatment with antibiotics.</p> <p>Vomiting or diarrhoea but still able to tolerate diet and fluids.</p> <p><b>See your GP if you are still unwell after 48 hours.</b></p> <p><b>If your symptoms or condition worsen, or if you are concerned about anything, please call your GP, 111 or 999 and state you are steroid dependant patient and are unwell.</b></p>

## How much steroid medicine should I take once I feel better?

As soon as your illness is over and the symptoms are gone (for example, fever, vomiting, diarrhoea...etc.) you can usually return to taking your usual amount of medication. You should discuss this with your local doctor (GP).

## What if I am so ill that I cannot take my steroid medication?

If you are too ill to take your oral steroid medication or you cannot keep them down (i.e. vomiting or severe persistent diarrhoea) you must take an **intramuscular injection of hydrocortisone 100mg**. You or someone who lives with you will need to learn how to give you this injection. If you don't have anyone who can give your injection you must contact your GP practice or ring 111 to advise them that you need your hydrocortisone injection.

## What should I say to my GP, ambulance team and A&E doctors when I seek emergency help?

I have adrenal insufficiency and I am on regular steroid tablets. I am unwell and I urgently need to have either a 100mg of intramuscular injection of hydrocortisone or intravenous hydrocortisone (If you have already administered your intramuscular injection of hydrocortisone, inform GP / paramedics/ A&E Clinician). Please check my blood pressure, urea and electrolytes (U&E's), glucose and other relevant tests. I may need 0.9% sodium chloride / dextrose intravenous infusion. If I am not treated urgently, my life could be in danger.

The table below gives you simple advice on when to take intramuscular injection of hydrocortisone.

### Sick day rule 2:

<b>Sick Day Rule 2</b>	<b>Inject hydrocortisone 100mg intramuscularly during:</b>
	<p>Period of severe illness. If you collapse, or experience giddiness/ light-headedness on standing, confusion, severe lethargy and unable to get out of bed due to severe illness.</p> <p>Loss of consciousness.</p> <p>Unable to take oral steroid medications e.g. during/ before the surgical procedures and investigation (you must inform the surgical / medical team you are a steroid dependant patient).</p> <p>Persistent vomiting or diarrhoea that you cannot keep any tablets down or your body cannot absorb the steroid tablets.</p>

	<b>If you require an injection of hydrocortisone, then you will need to be assessed by a healthcare practitioner, please call GP, 111 or 999 and state you are steroid dependant patient and are unwell.</b>
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### **What to do if I cannot use my intramuscular injection of hydrocortisone?**

If you are unwell (Sick Day Rule 2) and unable to administer your intramuscular injection, you must seek urgent medical advice, call GP or 111 or 999 and state you are a steroid dependant patient and are unwell.

### **Other important Advice**

It is a good idea to purchase a 'Medic Alert' bracelet or necklace and carry a red steroid card at all times.

### **Travelling abroad / holiday advice**

When travelling abroad or on holiday, it is advised that you carry twice the amount of steroids you need in case you have to double your dose due to illness.

If you are on a long haul flight over 12 hours, double your usual dose of steroids on the day of flight.

It is also useful to carry a hydrocortisone injection kit with you in case of emergency. If you are travelling abroad, you will need a letter from your doctor explaining what the injection kit is for.

### **What to do if you are having a surgical procedure or investigation?**

Surgical procedures and investigations	Steroid dose adjustments	How to seek help
Minor Procedure (e.g.: tooth extraction)	Double the dose of steroid tablet on the day of procedure, then administer 100mg injection hydrocortisone one dose, either intramuscularly (IM) by patient / relative or IM or intravenous (IV) by medical staff, 30 minutes prior to the procedure. After that, resume normal steroid dose from next day if you are well but if you are unwell follow the sick day rules.	Tell the dentist / anaesthetist/ GP/Surgeon/ medical staff, that you take steroid tablets and have adrenal insufficiency

<p>Small and major elective operations (e.g.: hernia repair, abdominal operations or chest operations... etc.) and you are admitting to the hospital on the day of surgery</p>	<p>Double the dose of your steroid tablet in the morning of the procedure. The hospital staff should administer Hydrocortisone injections according to the hospital guidelines and adjust the doses of your oral steroid post-operatively.</p>	<p>Tell the dentist / anaesthetist/ GP/Surgeon/ medical staff, that you take steroid tablets and have adrenal insufficiency</p>
<p>Colonoscopy</p>	<p>Double your usual dose as soon as the preparatory laxatives take the effects and for the duration of the preparations. Then medical staff to administer 100mg Hydrocortisone injection 30 minutes prior to the procedure. After that, resume normal dose from next day if you are well but if you are unwell follow the sick day rules.</p>	<p>Tell the Surgeon / medical staff, that you take steroid tablets and have adrenal insufficiency</p>
<p>Gastroscopy (Endoscopy)</p>	<p>Double the dose of your steroid tablet in the morning of the procedure. Then medical staff to administer 100mg Hydrocortisone injection 30 minutes prior to the procedure. After that, resume normal dose from next day if you are well but if you are unwell follow the sick day rules.</p>	<p>Tell the Surgeon/ Endoscopy Nurse / medical staff, that you take steroid tablets and have adrenal insufficiency.</p>
<p>Barium Enema and Cystoscopy</p>	<p>Double your usual dose of steroid on the day of procedure. Resume normal dose from next day if you are well but if you are unwell follow the sick day rules.</p>	<p>Tell the dentist anaesthetist / GP/ Surgeon / medical staff, that you take steroids tablets and have adrenal insufficiency.</p>

**If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.**

**What to do if I have severe mental shock e.g.: bereavement or road traffic accident?**

Sudden or severe shock may be classed as an emergency. If you are in severe shock, administer double the dose of steroid as soon as possible.

**Other situations to consider:**

### **Pregnancy**

If you become pregnant, contact your Endocrinologist for advice regarding your steroid medication.

### **Before major physical activity**

Depending on the degree of physical activity, you might benefit from taking small dose of steroid before engaging activities such as long distance running/ marathon, major sports events or competitive dancing. Contact your Endocrinologist for advice.

DVLA (Driver and vehicle licensing Agency) information

**If you are diagnosed with Addison's disease and have a bus, coach or lorry licence, it's your legal obligation to inform the Driver and Vehicle Licensing Agency (DVLA).**

**You don't need an increase your medication dose for general emotional stress, exams, a common cold or airline flights. Ask your GP if you are concerned.**

**What to do if I need training in how to give my hydrocortisone injection?**

Ask your doctor to contact the Endocrine Specialist Nurse to arrange to train you.

**What to do when the hydrocortisone injection stock is finished or has expired?**

Your GP will be able to provide repeat prescription for injection hydrocortisone and water for injection. They may also supply the 2ml syringes and 23 G intramuscular needles. Contact your Endocrine specialist nurse if your GP is not able to supply the equipment for your hydrocortisone injection.

For any queries and advice between Monday to Friday 8.30am – 4pm (except Bank Holidays) please contact your Hospital Endocrine Consultants or Specialist Nurse through their Secretary phone no:

Worcestershire and Kidderminster Hospital Endocrine consultants secretary phone number: 01905 760671 / 01905 733039

Email: [wah-tr.diabetesadvicewrh@nhs.net](mailto:wah-tr.diabetesadvicewrh@nhs.net)

Redditch Alexandra Hospital Endocrine consultants secretary phone number: 01527 503890

Email: [wah-tr.diabetesadvicealx@nhs.net](mailto:wah-tr.diabetesadvicealx@nhs.net)

Endocrine Specialist Nurse at Worcester Acute Hospitals NHS Trust.

Phone: 07563373193

Email: [wah-tr.endocrinespecialistnurses@nhs.net](mailto:wah-tr.endocrinespecialistnurses@nhs.net)

Please Note, these phone numbers and email addresses are not for emergency management or emergency contact.

Some useful websites are below:

Liverpool University Hospital Emergency hydrocortisone injections movie link:

<https://youtube.com/watch?v=NXXB3w1ADcl&feature=share>

UK Addison's Disease Self Help Group

[www.adshg.org.uk](http://www.adshg.org.uk)

The pituitary Foundation

[www.pituitary.org.uk](http://www.pituitary.org.uk)

Medic Alert

[www.medicalert.org.uk](http://www.medicalert.org.uk)

Freephone: 0800581420

## **Patient Experience**

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

## **Feedback**

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

## **Patient Advice and Liaison Service (PALS)**

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

## **How to contact PALS:**

**Telephone Patient Services: 0300 123 1732 or via email at: [wah-tr.PALS@nhs.net](mailto:wah-tr.PALS@nhs.net)**

## **Opening times:**

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.