

Advice for patients who take replacement steroids (hydrocortisone, prednisolone, dexamethasone or plenadren) for pituitary/adrenal insufficiency

A number of you have been in touch looking for advice relating to the global coronavirus (also known as COVID-19) outbreak. If you are on steroid replacement therapy for pituitary or adrenal disease, or care for someone who is, and you're worried about coronavirus, we've brought together a number of resources that we hope you will find useful.

Coronavirus Adrenal Insufficiency Advice for Patients

Primary adrenal insufficiency refers to all patients with loss of function of the adrenal itself, mostly either due to autoimmune Addison's disease, or other causes such as congenital adrenal hyperplasia, bilateral adrenalectomy and adrenoleukodystrophy. The overwhelming majority of primary adrenal insufficiency patients suffer from both glucocorticoid and mineralocorticoid deficiency and usually take hydrocortisone (or prednisolone) and fludrocortisone. Our guidance similarly applies to patients with secondary adrenal insufficiency mostly due to pituitary tumours or previous high-dose glucocorticoid treatment. These patients take hydrocortisone for glucocorticoid deficiency

As you will be aware it is important for patients with adrenal insufficiency to increase their steroids if unwell as per the usual sick day rules.

Please ensure you have sufficient supplies to cover increased doses if you become unwell and an up to date emergency injection of hydrocortisone 100mg.

Patients who suffer from a suspected or confirmed infection with coronavirus usually have high fever for many hours of the day, which results in the need for larger than usual steroid doses, so we advise slightly different sick day rules, which are listed below.

Symptoms that indicate a likely coronavirus infection are fever >38°C, a dry cough, sore throat, loss of sense of smell or taste, aches and pain and fatigue).

In patients with a suspected (or confirmed) coronavirus infection, we recommend:

Patients on hydrocortisone

please increase hydrocortisone to 20 mg four times daily every 6 hours

Patients who usually take Plenadren should switch to the regular, immediate release hydrocortisone preparation and take 20 mg orally every 6 hours

Patients on prednisolone

Patients on 5-15 mg prednisolone daily should take 10 mg prednisolone every 12 hours; patients on oral prednisolone >15 mg should continue their usual dose but take it split into two equal doses of at least 10 mg every 12 hours.

If on **fludrocortisone**, continue taking your usual daily dose.

General advice:

Seek medical advice by calling 111 or accessing the coronavirus online information:

<https://111.nhs.uk/covid-19/>

Drink plenty of fluid and make sure you are passing urine regularly. You may need to wake in the night to keep drinking whilst fevers are high. If your urine is very dark, try to drink more fluids

Take paracetamol 1000 mg every six hours

Coronavirus infections can come with 1-2 weeks of almost continuous fever. However, you need to watch if the infections gets worse – signs indicating a deterioration are dizziness, intense thirst despite drinking, shaking uncontrollably, drowsiness, confusion, and increasing shortness of breath (struggling to speak, struggling to breathe), which indicates that the coronavirus starts to attack the lung or other organs.

- ⇒ In this situation and also if any vomiting or severe diarrhoea develops you (or your carer/partner) should immediately self-inject 100 mg hydrocortisone intramuscularly using your emergency injection.
- ⇒ You (or your partner/carer) should immediately call 999 to arrange for further treatment and transfer to the hospital.
- ⇒ You should continue to take hydrocortisone at a dose of 50 mg every six hours until you are in hospital and can be started on intravenous hydrocortisone 200 mg per 24 hours.

Please do not hesitate to contact medical emergency services, if the clinical signs and symptoms of coronavirus significantly worsen.

Call 999 and if it may take very long until an ambulance can arrive, consider making your own way to hospital after taking your 100 mg IM emergency hydrocortisone injection

If you are admitted to hospital very unwell we recommend:

1. Hydrocortisone 100 mg per IV injection followed by continuous IV infusion of 200 mg hydrocortisone/24h (alternatively 50 mg every 6 h per intravenous or IM bolus injection)
2. Pause fludrocortisone
3. Intravenous Fluids

You can show the medical team this advice.

Download the new NHS emergency steroid card from Society for Endocrinology link:

<https://www.endocrinology.org/adrenal-crisis>

If you would like to discuss this further please get in touch with your local endocrinology team.

Patient Information is also available from:

The Pituitary Foundation (www.pituitary.org.uk)

Addison's Disease Self Help Group (www.addisons.org.uk)

Coronavirus Vulnerable Adult Advice

On the basis of current data, there is no evidence that patients with adrenal insufficiency are at increased risk of contracting coronavirus (COVID-19). However, we know that patients with Addison's disease (primary adrenal insufficiency) and congenital adrenal hyperplasia have a slightly increased overall risk of catching infections. However patients who take steroids for endocrine conditions are at increased risk of becoming more unwell from coronavirus, and possibly having an adrenal crisis.

The government has issues a list of people considered vulnerable and this includes anyone instructed to get a flu jab as an adult each year on medical grounds as well as all people whose medication includes steroid tablets. Whilst adrenal insufficiency is not specifically mentioned in this guidance, both of these criteria apply to patients with adrenal insufficiency.

The government has issued guidance that our patients with these conditions should be to be particularly stringent in following social distancing measures and advise people to work from home, where possible.

Full measures are:

1. Avoid contact with someone who is displaying symptoms of coronavirus. These symptoms include high temperature and/or new and continuous cough
2. Avoid non-essential use of public transport when possible
3. Work from home, where possible. Your employer should support you to do this. Please refer to [employer guidance](#) for more information
4. Avoid large and small gatherings in public spaces, noting that pubs, restaurants, leisure centres and similar venues are currently shut as infections spread easily in closed spaces where people gather together.
5. Avoid gatherings with friends and family. Keep in touch using remote technology such as phone, internet, and social media
6. Use telephone or online services to contact your GP or other essential services

Please read here for more detailed information.

<https://www.gov.uk/government/publications/covid-19-guidance-on-social-distancing-and-for-vulnerable-people/guidance-on-social-distancing-for-everyone-in-the-uk-and-protecting-older-people-and-vulnerable-adults>

Please note this is NOT the same advice as for the shielded category of patients.

General information is available from the NHS:

<https://www.nhs.uk/conditions/coronavirus-covid-19/>

<https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public#history>

Online coronavirus service <https://111.nhs.uk/covid-19/>

Diabetes Insipidus advice:

<https://ec.bioscientifica.com/view/journals/ec/7/7/EC-18-0154.xml>

Tailored information for people living in Wales, Scotland and Northern Ireland can be found at:

- [Public Health Wales](#)
- [Health Protection Scotland](#)
- [Public Health Agency \(NI\)](#)

The NHS also has [up-to-date advice](#) on what to do if you've recently returned from travel abroad, symptoms to look out for, and action to take if you become unwell.

The Foreign and Commonwealth Office has information and advice for [British people travelling and living overseas](#).

If you become unwell, in non-emergency situations, NHS 111 will be able to give specific advice. In an emergency, call 999 immediately.