

The Solent and IOW Pituitary Support Group

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The
● Pituitary
Foundation

Solent & Isle of Wight
Support Group



Newsletter No. 87, June 2024

Hello everyone,

Welcome to another edition of the Solent and IOW Pituitary Support Group Newsletter, for June 2024.

Thank you to everyone who has contributed, by sending material for the newsletter and giving their encouragement.

We aim to produce a newsletter four times a year, and normally it is timed to be issued shortly before each of the main support group meetings at the Cosham Community Centre. The next meeting is on Saturday 29 June at 10 am. There will be tea, coffee, juice and biscuits. And a raffle. You may bring your own sweet or savoury snacks if you wish. Please note that NO nuts or nut derivatives are allowed in the building.

For this meeting we do not have a designated speaker. Instead it will be what we call a patient led meeting. We will share our experiences and our ideas for dealing with pituitary-related symptoms and difficulties, as well as finding out what has worked well for people. Similar meetings have been very beneficial in the past. Because in many ways, the real experts on pituitary problems are ourselves. See also page 3 for more information.

We have in the past, often welcomed new patients and their partners, family or friends at meetings, so if you have recently found out you are a pituitary patient or just found out that we as a support group exist, please get in touch and join us for future meetings and you'll be made very welcome.

Find us on Facebook - The Solent and IOW page is in the form of a group. Together we'll be updating and posting relevant information on there. Anyone that uses Facebook can search and join the group. It is listed as the following: - The Solent & IOW Pituitary Patient Support Group. This is in addition to the main Pituitary Foundation page and other pituitary Facebook groups.

===== Meeting dates for your diary for 2024 =====

Most meetings at Cosham Community Centre, Wootton Street, Cosham, PO6 3AP

At the Cosham meetings we will have tea, coffee, juice and biscuits available. You may bring your own snacks if you wish, but please note: NO nuts or nut derivatives are allowed in the building. Masks are no longer essential at the meeting, but you may wear one if you wish.

- Saturday 29 June 2024 at 10 am – No speaker; instead a patient-led meeting
- Isle of Wight meeting Saturday 20 July 2024 at 10:30 am at Lake Community Centre with Dr Victor Lawrence – Interactive with Q & As
- Saturday 28 September 2024 at 10 am – Tai Chi and exercises to combat arthritis with Kathryn Pearce
- Saturday 7 December 2024 at 10 am – pre-Christmas meeting with quiz, festive food to bring and share, etc.

There is always a raffle at the main meetings in Cosham and Lake. Prizes gratefully received on the day please.

Receiving your newsletter - If you would rather receive your newsletter by email, please email Howard at: howardpearce1@yahoo.com or Gail at g.weingartner@btinternet.com and let them know. Or let Gail or Howard know if you wish to come off the mailing list altogether.

More than half of the newsletters are now sent out by email. Unfortunately, there are often a few people who have changed their email address, and they do not get their electronic copy. We usually manage to send them a copy by post, but inevitably it is a few days late. If you have changed your email address, please let us know.

The cost of posting the newsletter – Printing and postage of the newsletter for those who do not get their copy by email is a major cost item, around £300 a year, and the price of stamps has gone up again. It would be very much appreciated if those receiving the newsletter by post would make some contribution towards the cost of printing and postage, either by stamps or money, or change to email delivery. Gail and Pam Weingartner and Melissa Reeds are always happy to receive a book of stamps from anyone who receives the newsletter by post. They send a special thank you to everyone who has given stamps or money for this.

It's your newsletter – We would love you to write something for the newsletter. If you have something to share – your experience as a patient, something you have done, some wise words, something to make us laugh, or something that we all ought to know – please send it for the next newsletter, which we are aiming to produce in August to September 2024.

Donations

Our thanks to our fundraisers for their kind donations and fundraising on our behalf. It is because of the continued support of this kind that we are able to have our quarterly meetings and fund the newsletter. But, we DO NEED some proactive fundraising to keep our bank balance in the black, so please give thought to and let one of us know your ideas.

A special thank you to all who contributed to this newsletter.

Our patient led meeting at Cosham on 29 June

This will be a patient led get-together, the concept of which, was brought about by Vernon, one of our very valued members, several years ago. Vernon suggested the idea because when we all sit around having a chin wag, he noted that we really get down to sharing our experiences and



usually pick up hints and tips about how we manage our individual conditions. You won't be made to feel that you have to contribute but you'll probably find that you do! I (Gail) have been a pituitary patient since 1993 and still pick up very interesting and useful facts all these years down the line.

Come along and give it a try. We look forward to welcoming you on the day.

Chris Owen

It is with great sadness that I am having to let you know about the recent passing of our very long standing member Chris Owen. I really can't remember quite how long Chris, his Mum Freda and sister Teresa have joined us at our get-togethers but I do recall that they definitely came along to our QA Hospital meetings when we used to meet there many years ago.

Chris came across as a quiet man who certainly had to fight his Acromegaly over the years but, although we would sit and chat about his particular pituitary condition, he didn't ever actually complain, which says a lot for sure. Chris especially seemed to enjoy our pre-Christmas meeting quizzes contributing with a smile and a laugh.

You will be missed Chris and our sincere condolences go out to your family.

Gail here: I know I always have something to say about Dr Victor Lawrence in our newsletters, but I am yet again, blown away by just how fortunate our support group is in that he replies to our questions in such depth. As a patient, I do sometimes feel overawed by how complicated our particular pituitary conditions are. In this edition of the newsletter, Dr Lawrence is not answering questions, but writing about steroid replacement, the adrenal glands, and much more.



Steroid replacement for Adrenal Insufficiency - Some past, present and future perspectives

Gail has asked me to write some more on steroid replacement for this issue. I will start with a little history for those that may be interested. We should remember that however imperfect steroid replacement may still be, and it is, there was a time, possibly just about within living memory of some who may be reading this, when life was simply not possible because there was no available replacement at all.

I will start with some history of the development of steroid hormone replacement, go on to discuss some aspects of steroid deficiency that may be unfamiliar such as whether ACTH itself (after all is the hormone that is actually missing in people with pituitary conditions that lead to steroid deficiency) has any roles other than causing the adrenal glands to release cortisol and then discuss some of the differences between primary adrenal insufficiency (when the adrenals themselves cannot make adequate cortisol despite plenty of ACTH signal from the pituitary) and secondary adrenal insufficiency (where the pituitary ACTH signal to them is faulty). I will also describe some of the reasons that current steroid replacement may not perfectly treat steroid deficiency and why many people may not feel as well as they would wish to on replacement.

It is easy to take it for granted that we have always known about the adrenal glands but this is not so. Although Leonardo Da Vinci drew what appear to be adrenal glands in some of his sketches, professional anatomists of the time either thought they were just part of the fat lying around the kidney or supposed that they were little bags filled with black bile. In the mid-1850's, Thomas Addison at Guy's Hospital in London described a series of patients (mostly with TB of

the adrenal glands although some may have had autoimmune adrenal failure which is the commonest cause in this country now). In this condition, which we now call Addison's disease, the adrenal glands (or 'suprarenal glands' as he called them) themselves are destroyed by TB infection and ACTH is released from the pituitary in massive quantities trying its best to make the failing adrenals produce steroids. The description he gave of his patients, who all died, which we would absolutely recognise today, was that

"discoloration pervades the whole surface of the body, but is commonly most strongly manifested on the face, neck, superior extremities, and in the flexures of the axillae and around the navel...The leading and characteristic features of the morbid state are, anaemia, general languor and debility, remarkable feebleness of the heart's action, irritability of the stomach, and a peculiar change of the colour in the skin, occurring in connection with a diseased condition of the suprarenal capsules".

The skin discolouration that Addison described is caused by ACTH which darkens the skin when released in large amounts. Despite this very precise description, it was not until 1908 that it became widely accepted that normal function of the adrenal glands was actually necessary for life. The very first hormone ever to be purified was from the adrenal glands. However, it was not a steroid hormone but instead, adrenaline. Adrenaline (which obviously derives its name from the glands where it comes from) was extracted and purified in 1901 and, when injected into animals, caused their blood pressure and pulse to go up so clearly had an effect that could be witnessed and measured. For quite some time, it was assumed that it was adrenaline that explained the importance of the adrenal glands. However, we now know that adrenaline-like substances may be freely made all over the body and in fact, the adrenal contribution does not appear to be very important at all in humans.

Grinding up animal pancreas glands and trying to extract and purify the active substance for controlling blood glucose levels was the technique that Banting and Best successfully used in the early 1920's to 'discover' insulin and purify it enough for human use in diabetes. However, when people attempted to inject themselves or others with other ground up hormone-producing gland extracts (often testes were tried- most researchers were male at the time and hoped to see the effects of a testosterone boost!) the results were generally disappointing. The term 'snake oil' came from this sort of remedy of which great claims were made but little benefit was seen by those parting with their money.

The function of the outer part of the adrenal glands, the adrenal 'cortex', therefore remained a mystery to scientists for much longer than that of the inner part or 'medulla' that makes adrenaline. It was known that adrenal gland tumours could sometimes cause Cushing's syndrome. This is a condition where excessive steroids cause weight gain, a rounded face, diabetes, high blood pressure, muscle wasting, easy bruising, depression and a range of other recognisable effects. It was also known that some adrenal tumours could also (rarely) cause women and girls to become 'virilised' which is to develop 'masculine' features such as beard growth, male pattern baldness, deepening of the voice and other changes. Some adrenal cortex tumours could also cause very high blood pressure associated with low levels of potassium and excessive alkalinity in the blood. This led scientists around the turn of the century to believe that the adrenal glands may produce a number of hormones with different effects. In 1908, it became understood that if adrenal glands were removed from an animal, it would die but it was not until 1927 that it was found that this death could be delayed (at least for around 27 days) if the animal was injected twice daily with extracts of the adrenal gland compared to animals not given this who all died within about 5 days. In 1930, this technique of extract injection was first tried in a human with adrenal failure (with some temporary success). The adrenal extract used was named 'Cortical Hormone' from which we got the name 'cortisol' although this extract was far from pure cortisol. Whilst cortisol is vitally important, the adrenal cortex also makes a hormone called aldosterone which has a vital role in maintaining blood pressure and regulating body sodium (salt), potassium levels and correct blood pH (degree of

acidity) which is essential for all the chemical reactions in the body to take place correctly. Aldosterone was not isolated until 1953. Cortisol alone in high enough (approximately ten times normal) doses will mimic the action of aldosterone and it is possible that this effect masked the existence of the second life-critical hormone that is produced in the adrenal glands.

We now know that Aldosterone is produced normally in people with pituitary conditions even if cortisol is not. This is because ACTH from the pituitary gland controls cortisol release but aldosterone release is controlled by another hormone, renin, which is released from the kidney when either potassium levels are too high or sodium levels (and consequently blood pressure) too low. This system does not depend on the pituitary gland at all so it is only people with primary adrenal disease that lack aldosterone. People who have primary adrenal disease need to take a version of this hormone called fludrocortisone as well as hydrocortisone but those with pituitary conditions still make aldosterone normally and take hydrocortisone replacement alone. For this reason, adrenal crisis in people with primary adrenal disease (as opposed to when it is secondary to a pituitary disorder) tends to be more severe, more rapid in onset and cause lower blood pressure (shock) and dangerous mineral imbalances more readily than crisis in those with pituitary conditions who lack cortisol but not aldosterone.

One of the problems in early steroid research is that whilst some hormone producing glands produce their hormones in advance and release them when they receive a signal to do so (e.g. the pancreas and insulin), steroid hormones are produced 'on demand' and are barely stored in their gland of origin at all. This is why the 'snake oil' remedies referred to above usually did not have much effect (other than to make people very ill on occasion because of impurities, chemicals used to make them and bacteria that also got injected!). When aldosterone was finally purified, for example, two hundredths of a gram were all that could be produced from half a tonne of adrenal glands taken from slaughtered beef cattle!

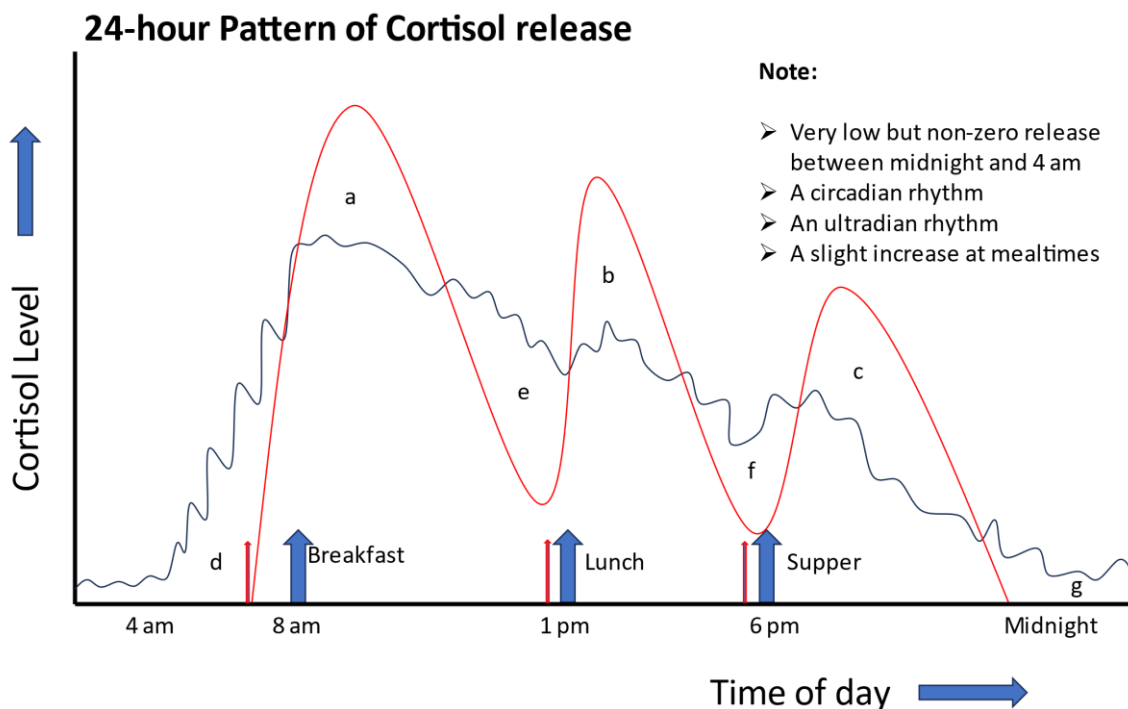
Despite these difficulties, during the 1930's, one by one, progress was made in isolating the steroid hormones in the adrenal gland from hundreds of kilos of animal glands and each was given a letter in the order of its discovery. Compound F, the 6th adrenal steroid to be isolated and now familiar to us as cortisol, was first isolated in 1936. For a while, the war effort supported scientific work on steroid hormones as it was thought that they may perhaps enable aircrew to fly higher or for longer or be of some use in the war effort more generally. This did not prove to be the case but work was certainly given a new impetus after the war with the discovery that steroid preparations could have a dramatic and life-changing effect on some forms of arthritis.

One of the earlier patients to be treated for autoimmune Addison's disease was President JF Kennedy. He was initially diagnosed in the late 1940's and kept the diagnosis carefully hidden so as to conform to the notion of a president being in perfect health. During the 1960 presidential election campaign, Kennedy's opponents suspected that he may have Addison's disease (primary autoimmune adrenal failure in this case) but Kennedy confidently told an interviewer that "No one who has the real Addison's disease should run for the presidency, but I do not have it." To an extent this was true, he did not have adrenal failure caused by TB which is the 'true' Addison's disease he was referring to but some may feel that this was perhaps more than a little misleading if perhaps in some ways technically not incorrect!

Kennedy collapsed twice because of the disease: once at the end of a parade during an election campaign and once on a congressional visit to Britain. It has been hypothesised that some of the back problems that required him to wear a stiff brace may have been contributed to by the (primitive by today's standards) steroid treatment he took (excess doses can cause osteoporosis and collapse of the vertebrae) and had he not been wearing a brace, he may have thrown himself to the floor of the car and ducked after the first non-fatal shock rather than be propped up, unable to bend, and lethally wounded by the second shot.

It is interesting how the development of hydrocortisone and other synthetic (ie. made commercially rather than obtained from animals) steroids has mirrored the development of insulin for diabetes. The first purifications were being attempted in the 1920's and diseases that previously had been uniformly fatal became potentially survivable. Because steroid hormones are not stored in the glands that release them but are made 'on demand', it took longer to purify, identify and produce synthetic steroid hormones than it did for insulin but by approximately 1950-1953, the treatment of primary and secondary adrenal insufficiency both from day to day and during crises did not differ greatly from the treatment today. Just as with insulin not being the end of all the problems related to diabetes, it soon became apparent that steroid replacement did not completely reverse all the problems associated with adrenal insufficiency. In addition, we are now investigating continuous infusion of hydrocortisone as a means of replacement much as is being done for the treatment of type 1 diabetes.

One reason for the fact that hydrocortisone replacement is far from perfect is that although hydrocortisone is life saving and is usually given three times a day in order to approximately mimic the body's natural release pattern, it is clear that this is not absolutely physiological (i.e. not as it would normally be). In the diagram below, the natural pattern of cortisol secretion is depicted by the black curve and the red curve shows approximately what happens to cortisol levels throughout the day in an individual on three times daily hydrocortisone replacement (doses indicated by the red arrows).



Note that during times a, b and c on the graph, cortisol levels are higher than they would naturally be and that these periods may be relevant to causing side effects from excess hydrocortisone replacement. At points d, e, f and g, the cortisol levels are lower than they would naturally have been and these may be times that symptoms of under-replacement may develop in some people particularly if these periods are prolonged or severe. In addition, levels of cortisol in people taking hydrocortisone replacement will tend to be very close to zero overnight which is lower than they would naturally be. In addition, the natural function of the adrenal glands is to cause cortisol to rise in the hours before awakening but it is obviously not possible to take a pill before waking up so this cannot be replicated with tablets (*unless you wake up specially during the night to take a tablet, as some do – editor*). We do advise that hydrocortisone is taken immediately on waking for this reason to get the levels up as soon as possible but clearly there is a lag which may affect how people who take hydrocortisone feel in the morning when they wake up. The small continuous pulses in cortisol that are present in the

natural curve (black) are not present in the hydrocortisone replacement curve (red) and are only possible to replicate with continuous infusion (a pump). Whether or not a pump which can replicate this so called 'ultradian' (oscillating many times per day) variability, potentially match the natural curve better and produce continued but very low levels of cortisol overnight is subject to current research but early results suggest that this may be the case. It is thought that cortisol may have an action in regulating the body clock and the wide swings in cortisol levels seen with hydrocortisone may lead to this being disrupted. This could, at least in theory, contribute to a sense almost akin to 'jet-lag' in some people taking hydrocortisone. Whether or not pump therapy will be shown to improve this is a matter of future research interest.

ACTH (which is the hormone that is of course deficient in individuals with adrenal insufficiency secondary to pituitary conditions) has actions in the body in addition to causing cortisol release and it is not known whether any of these actions may be relevant to why replacement is not always felt to be satisfactory. However, replacing ACTH accurately would probably be even more difficult than replacing cortisol and it would be very difficult indeed to obtain the correct levels of cortisol throughout the day. However, ACTH definitely does have actions on organs and tissues within the body above and beyond releasing cortisol and this may be one part of the explanation for hydrocortisone replacement not always fully restoring health and wellbeing in people with ACTH deficiency.

I hope this brief tour of the history of steroid replacement and some current research developments particularly in relation to hydrocortisone pump therapy may be of interest to those with adrenal insufficiency whether this is due to pituitary ACTH deficiency or, possibly for some readers, due to primary adrenal insufficiency (eg. those having had bilateral adrenalectomy for Cushing's disease). Although there are still perhaps more questions than answers, I think there is a definite understanding that current steroid replacement, whilst life saving, is not perfect for everyone and there is work actively being done to understand and treat this better.

The following three items are adapted from articles in Pituitary Life, summer 2024 edition:

Dynamic testing – the U-RHYTHM device

Currently, if medics want to collect information about hormone levels and other biomarkers continuously or frequently over a 24 hour (or longer) period, it means a stay in hospital. The information that such analysis gives, can be much more useful than once a day blood tests, as noted by Dr Lawrence above.

The U-RHYTHM portable collection device, combined with state of the art liquid chromatography mass spectrometry, provides continual measurement of tissue level biochemistry, including hormones, over a period of 24 to 72 hours. It is being developed by Dynamic Therapeutics, a spin-off company from Bristol University, and makes use of the research at the university, including by Professor Stafford Lightman.

Currently the device is still at the research stage, and Dynamic Therapeutics are raising funds to produce more devices for patient use.

View this link for more information: www.bristol.ac.uk/news/2024/april/blavatnik-prize.html

From Paul Oastler - Hi all, the quiet one here, it's strange that I find it easier to write on here than talk in front of 20 people.

First of all me and Jill were sad to hear about the passing away of Chris Owen; he was there when i first started to attend meetings way back in 2009. Our condolences go out to all of his family.

Blimey 2009, in fact I had my op in 2008, where does the time go?.

A couple of weeks ago when taking my tablets I thought what a good idea to work out how many tablets I have taken over the years. I got up to 2016 and the battery ran out on the calculator! So for all you budding mathematicians out there, I take 12 and a half tablets a day and rattle when I walk! I will be taking answers at the next meeting and there may be a prize of a holiday in North Korea or a night out with Donald

Trump. I thought at Christmas people give their pharmacy tins of chocolates but in mine they give me one along with a card saying thank you for keeping us in a job !

Anyway, what an interesting man Doctor James Lawrence was at the last meeting when he talked in layman's terms and even I understood some of it. I had 3 questions for him (yes me the quiet one) but he was so interesting that he ran out of time, so if you want to know what the questions were, you must join us for our Isle of Wight meeting with Dr Victor Lawrence, when I will be asking them there (Saturday 20 July). Ok, take a breath and put a full stop here.

A quick note about my life since my last letter over a year ago. In the last letter my mother was just moving in with us as she fell in her home and couldn't cope. We are now busy looking for a home for her as she has deteriorated and has been in and out of hospital since November. I know people moan about the NHS but I can't speak highly enough about the care and patience the nurses at QA have given my mum. She now has dementia which varies from day to day.

Anyway, what about me I hear you say? Well I'm now retired but still work 6 days a week (I can see Gail raising her eye brows) but I only do lighter jobs now and just recently turned down 2 patios, a long wall and an extension. But I must admit that maybe the pituitary bit is catching up with me as I, find myself getting tired in the afternoon. We also have two grand children Elliott 2 and Sylvie Rose who is 9 months so maybe it's time to take a few days a week off so I can be with them; they grow up so quick. As for my health, apart from my tiredness, I still have carpal tunnel and sleep apnoea, and yes, Jill still says I look like a cross between Tinky Winky and Darth Vader when i go to bed. Long black finger less gloves with Velcro straps for my carpal tunnel and a breathing machine with more hoses than Monty Dons garden !!

Ok, a few jokes to finish off if you have stayed with me this long.

Actually I did go to the doctors the other day because I have rare condition where I think I am a goat? The Doc said how long has this been happening?
I said ever since i was a kid.

I'm not sure if you lot have been down the Gunwharf lately?
There is a new strange restaurant where they sell roast Pelican.
It is really expensive though. You want to see the size of the bill.



More I hear you say so ok, one more.
In fact its two experiences I've had in Fratton's Tesco's
I haven't told the wife but I think the shop assistant fancies me? She keeps checking me out!
And I also asked the same assistant where the OXO cubes were because I couldn't find them.
She told me they were out of stock.
Keep Chuckling – Paul

From Michael Biggs - A word of caution, Do Not Assume !!

In March 2023 I moved to Yorkshire, I re-registered with a new doctor, and then stupidly thought that not only would my GP notes be transferred but also my hospital notes, including my two appointments at Southampton General Hospital.

How wrong was I; only GP notes are transferred for hospital appointments & your new GP has to request referral. It took six months to see the Endocrinologist, who was more concerned that she had very little in the way of information about my condition, even though the adenoma is growing back, and it is now 19 months since my last MRI scan. When I saw her last week she still had not got my notes and did not seem interested in how I was feeling, but was going to speak to both my Neurosurgeon & Endocrinologist in Southampton. Until then she cannot refer me to the Neurosurgeons in Leeds.

For my other appointment with Colorectal, again a long wait, with day surgery a month ago and the second surgery at the end of July.

Also you are lucky in that SCAS (South Coast Ambulance Svc) Red Flag; Yorkshire Ambulance Service will not Red Flag if you are over 18. (Apparently, no ambulance services are now Red Flagging the over 18s. This is from the Pituitary Foundation 'horse's mouth' !!

So the moral of my story is, do not like me, stupidly assume, and fight hard for whatever you can get, it seems as though I am still fighting?

And two more articles relevant to hydrocortisone emergency:

Hydrocortisone injection box

This sturdy plastic container is big enough to hold the ampoule, syringes and needles required for your emergency injection, without being too bulky to carry around. The box comes with a label on the lid to make it easy to find and the hinge means you'll never lose the lid. The box also comes with an instruction card, providing a quick guide to administering the injection, serving as a simple reminder of the process in a stressful situation. Two separate cards are included for different versions of the injection (pre-mixed or powdered). We recommend only keeping the relevant card in the box.




You can buy this and lots more useful things on our website shop: www.pituitary.org.uk/shop

Unfortunately, we are not able to ship internationally at the moment due to issues with Royal Mail. ●

For cutting out and keeping



Steroid Emergency Card (Adult) 

IMPORTANT MEDICAL INFORMATION FOR HEALTHCARE STAFF
THIS PATIENT IS PHYSICALLY DEPENDENT ON DAILY STEROID THERAPY as a critical medicine. It must be given/taken as prescribed and never omitted or discontinued. Missed doses, illness or surgery can cause adrenal crisis requiring emergency treatment.

Patients not on daily steroid therapy or with a history of steroid usage may also require emergency treatment.

Name

Date of Birth NHS Number

Why steroid prescribed

Emergency Contact


When calling 999 or 111, emphasise this is a likely adrenal insufficiency/Addison's/Addisonian crisis or emergency AND describe symptoms (vomiting, diarrhoea, dehydration, injury/shock).

Emergency treatment of adrenal crisis

1) **Immediate** 100mg Hydrocortisone i.v. or i.m. injection.
Followed by 24 hr continuous i.v. infusion of 200mg Hydrocortisone in Glucose 5% OR 50mg Hydrocortisone i.v. or i.m. qds (100mg if severely obese).

2) Rapid rehydration with Sodium Chloride 0.9%.

3) Liaise with endocrinology team.

 Scan here for further information or search <https://www.endocrinology.org/adrenal-crisis>

We suggest these are folded over, face up, back-to-back.

The NHS Steroid Emergency Card has recently been launched to improve patient safety for those with adrenal insufficiency. The card will alert medical professionals across the NHS to your dependence on hydrocortisone. A hard copy version should be available via your GP or endocrinologist, so please do ask.

The card includes areas for you to fill in your personal details, as well as basic information and a QR code linking to the **SfE's guide to treating adrenal insufficiency**.

A **patient safety alert** has been released alongside the card to raise awareness of its importance amongst NHS medical professionals.

We recommend all adults with adrenal insufficiency should carry this card, either as well as or instead of our hydrocortisone awareness card.

For children, there is a steroid card here for free download or printing <https://www.bsped.org.uk/media/1823/bsped-adrenal-insufficiency-card-v31.pdf>

We can also send you a card, if you go to www.pituitary.org.uk/shop ●

If you're feeling lonely or just fancy a chat, then give Gail a call on either of the numbers shown on the first page. Stay safe and thanks soooo very much for your personal contributions folks.

Gail, Pam, Howard P, Melissa, Jodie, Jenny, Jackie, Eireen & Howard C