High Dose Steroid Prescribing and Emergency Treatment Card Policy

ELFT Primary Care Services

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Services	Applicable
Trustwide	
Mental Health and LD	
Community Health Services	
ELFT GP practices	X

Version control summary

Version	Date	Author	Status	Comment
1.0	June 2021	Gogo Abbey (GP Clinical Pharmacist)	Ratifiedby Chairman's action August 2021	Policy developed following National Patient Safety Alert (NatPSA) was issued by NHS England and NHS Improvement's national patient safety team in August 2020

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Executive Summary

All patients with primary adrenal insufficiency, such as those with Addison's disease, congenital adrenal hyperplasia, and hypothalamo-pituitary damage from tumours or surgery, are steroid dependent. Some patients who take oral, inhaled or topical steroids for other medical conditions may develop secondary adrenal insufficiency and be steroid dependent. Omission of steroids for patients with adrenal insufficiency can lead to adrenal crisis; a medical emergency which if left untreated can be fatal. Patients with adrenal insufficiency require higher doses of steroids if they become acutely ill or are subject to major body stressors, such as from trauma or surgery to prevent an adrenal crisis.

A National Patient Safety Alert (NatPSA) was issued by NHS England and NHS Improvement's national patient safety team in August 2020 regarding the use of a new Steroid Emergency Card for patients with adrenal insufficiency or steroid dependence. This policy provides guidance on how to identify patients who are eligible for an NHS Steroid Emergency Card and to raise awareness of this issue among clinicians in primary care.

Background

Introduction[1]

A NatPSA[2] alert has been issued to support the management of patients who are steroid dependent. Omitting steroids for patients with adrenal insufficiency can lead to adrenal crisis, if left untreated, this can be fatal. To prevent an adrenal crisis, patients with adrenal insufficiency (AI) require higher doses of steroids if they become acutely ill or if they are subject to major body stressors, such as trauma or surgery. Reports submitted to the National Reporting and Learning System (NRLS) suggest that some clinical staff are not aware of the risk of adrenal crisis or of the correct response or treatment pathway to follow should an adrenal crisis occur.

A new NHS Steroid Emergency Card has been developed by the Society for Endocrinology, the Royal College of Physicians and NHS England and NHS Improvement. This is to be carried by patients at risk of adrenal crisis. This NHS Steroid Emergency Card (figure 1) is a prompt to healthcare professionals when patients are admitted in crisis/as an emergency, or when undergoing surgery/procedure, it ensures steroid treatment is given appropriately and promptly. The card clearly outlines first management steps in an emergency. In addition, the card contains a QR code that links to further specialist advice.

National Guidance

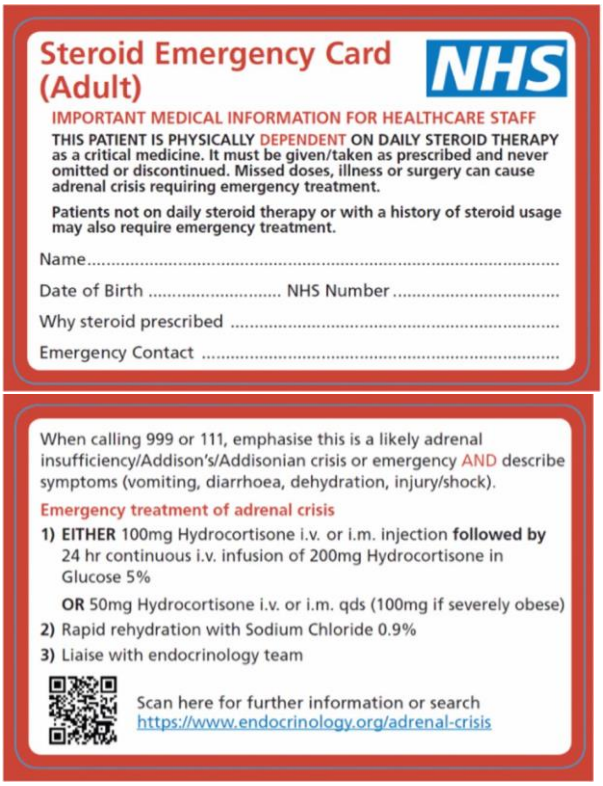
The NatPSA reported that a search of the NRLS for a recent two-year period identified four deaths, four patients admitted to critical care and around 320 other incidents, describing issues with steroid replacement therapy for patients with adrenal insufficiency or emergency treatment for adrenal crisis.

The NatPSA states that all patients with primary adrenal insufficiency are steroid dependent. Some patients who take oral, inhaled, or topical steroids for other medical conditions, may develop secondary adrenal insufficiency and become steroid dependent. Omission of steroids for patients with adrenal insufficiency can lead to adrenal crisis; a medical emergency which if left untreated can be fatal.

Fig 1

[1] PrescQIPP Hot topics https://www.prescqipp.info/umbraco/surface/authorisedmediasurface/index?url=%2fmedia%2f5486%2fimplementing-the-steroid-card-safety-advice-v22-hot-topic-april-2021.pdf

[2] https://www.cas.mhra.gov.uk/ViewandAcknowledgment/ViewAttachment.aspx?Attachment_id=103650



Steroid Emergency Card (Adult)

NHS

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) **EITHER** 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

Blue Steroid treatment cards and the London respiratory network card

The blue Steroid Treatment Card and the London Respiratory Network Card are unaffected by the introduction of the NHS Steroid Emergency Card. Patients should keep these, if advised by their healthcare team whilst implementation of the new Steroid Emergency Card takes place.

What about children?

Although the NatPSA alert does not cover children, a new steroid card for children with adrenal insufficiency has been developed by the British Society for Paediatric Endocrinology and Diabetes (BSPED). The card is designed to improve uniformity across NHS trusts and improve the treatment patients receive. The paediatric Steroid Treatment Card is available here -
https://www.bsped.org.uk/media/1823/bsped-adrenal-insufficiency-card-v31.pdf

Who should receive a Steroid Emergency Card?

Patients on the following treatments should receive a Steroid Emergency Card:

- All adults with adrenal insufficiency, such as those with Addison's disease, congenital adrenal hyperplasia, and hypothalamo-pituitary damage from tumours or surgery that are steroid dependent.
- All patients receiving exogenous steroids at a dose of prednisolone 5mg/day or equivalent for 4 weeks or longer. This is across all routes of administration (oral, topical, inhaled or intranasal) as they are also at risk of adrenal insufficiency.
- Patients taking inhaled beclomethasone >1000mcg/day or equivalent or fluticasone >500mcg/day or equivalent this is because they are at risk of adrenal insufficiency due to hypothalamo-pituitary axis suppression.

- Patients taking more than 40mg prednisolone per day or equivalent for longer than 1 week or repeated short courses of oral doses. e.g. patients on rescue treatment for asthma or COPD.
- Patients taking a course of oral glucocorticoid within a year of stopping long term (months or years) therapy.
- Patients taking drugs that affect CYP3A4 (CP450) metabolism with a steroid treatment. Clinicians should have a high degree of clinical suspicion and give stress doses of hydrocortisone if there is any concern with regards to the development of an adrenal crisis during an intercurrent illness or a procedure in these patients.

Details of the medications and doses which meet the criteria above are provided in the appendices. These include oral, inhaled and injectable preparations. Patients using topical and nasal corticosteroids could also be at risk of adrenal insufficiency particularly in combination with other steroid medication. Further specialist advice is available from the Society of Endrinology.

GP Clinical System prompts and Pop ups

- A steroid card alert will pop up on the GP clinical system, such as Emis or SystmOne, when the record of a patient who is eligible for a steroid emergency card is accessed.
- A clinical search is available in the clinical reporting function on the GP clinical system to identify most of the eligible patient groups
- A steroid emergency card template letter is accessible within the patient's clinical notes. The letter includes the card as shown in Fig 1 and can be cut out by the patient to carry with them.

Clinician's responsibilities

1. When initiating patients on a steroid treatment, assess whether a Steroid Emergency Card is required. If so print a copy for the patient or send it in the post if the patient is not physically present.
2. When reviewing patients with long term conditions or carrying out a medication review assess the need for a Steroid Emergency Card. If one has been issued in the past, check that the patient has still got the card and carries it with them at all times.
3. Advice patients/carers of sick day rules[3] as appropriate.
4. Educate patients/carers on how to manage adrenal insufficiency and express the importance of carrying the emergency card with them to be accessed in an emergency.
5. Add the readcode: Steroid Treatment card issued, to the patient's clinical record.
6. Clinical audit -the practice should audit adherence to this guidance every six months.

Review

This policy is subject to review every three years, or in light of any changes to the relevant local and national guidance.

Appendix 1- Oral Steroids

[3] https://www.endocrinology.org/media/3717/sick-day-rules.pdf

Appendix 2 – Inhaled steroids

Appendix 3 – Injectable steroids

Bibliography

- Exogenous steroids treatment in adults. Adrenal insufficiency and adrenal crisis-who is at risk and how should they be managed safely. https://www.endocrinology.org/media/4091/spssfe_supporting_sec_-final_10032021-1.pdf
- Guidance for the prevention and emergency management of adult patients with adrenal insufficiency. https://www.rcpjournals.org/content/clinmedicine/20/4/371
- PrescQIPP: Implementing the NHS Steroid Emergency Card National Patient Safety Alert (NatPSA) **https://www.prescqipp.info/media/5486/implementing-the-steroid-card-safety-advice-v22-hot-topic-april-2021.pdf** accessed 03.03.21
- Steroid Emergency Card to support early recognition and treatment of adrenal crisis in adults; National Patient Safety Alert NatPSA/2020/005/NHSPS

Appendix 1: Oral steroids

These quantities will need to be multiplied up/recalculated for patients taking more that 40mg prednisolone per day or equivalent for longer than 1 week, or repeated short courses of oral doses. e.g. patients on rescue treatment for COPD, multiple IBD flares, asthma etc.

Oral steroids	**Equivalent dose to prednisolone 5 mg**	**Dose per day (and 4-week quantity) for which NHS Steroid Emergency Card should be issued**
Betamethasone 500 microgram soluble tablets	750mcg	1.5 soluble tablets daily (42 tablets over 4 weeks)
Beclometasone dipropionate 5mg gastro-resistant modified-release tablets Brand: Clipper®	625mcg/0.63mg	1 tablet daily (28 tablets over 4 weeks)
Budesonide 3mg capsules, 9mg tablets/granules Brands: Entocort®, Budenofalk®, Cortiment®	1.5mg	3mg - 1 tablet daily (28 tablets over 4 weeks) 9mg capsules/granules - 1 tablet daily (28 tablets over 4 weeks)
Deflazacort 6mg tablets Brand: Calcort ®	6mg	1 tablet daily (28 tablets over 4 weeks)
Dexamethasone 500mcg/0.5mg, 2mg, 4mg & 40mg tablets Brand: Neofordex® Dexamethasone 2mg, 4mg, 8mg soluble tablets Brand: Glensoludex® Dexamethasone oral solution 2mg/5ml, 10mg/5ml, 20mg/5ml Brands: Martapan®, Dexsol®,	750mcg/0.75mg RCP article states 500mcg/0.5mg	**Tablets/soluble tablets** 500mcg/0.5mg: 1 to 2 tablets daily (28 to 56 tablets over 4 weeks) 2mg: 1 tablet daily (28 tablets over 4 weeks) 4mg:1 tablet daily (28 tablets over 4 weeks) 8mg: 1 tablet daily (28 tablets over 4 weeks) 40mg: 1 tablet daily (28 tablets over 4 weeks) **Oral solution** 2mg/5ml or 0.4mg/1ml: 1.9ml daily (53mls over 4 weeks) 10mg/5ml or 2mg/1ml: 0.38ml daily (10.64mls over 4 weeks) 20mg/5ml or 4mg/1ml: 0.19ml daily (5.32mls over 4 weeks)
Hydrocortisone 10mg, 20mg tablets Hydrocortisone 10mg soluble tablets Hydrocortisone 2.5mg buccal tablets Hydrocortisone modified-release 5mg, 20mg tablets Brand: Plenadren® Hydrocortisone 0.5mg, 1mg, 2mg, 5mg granules in capsules for opening Brand: Alkindi®	20mg RCP article suggests 25mg	**Tablets/soluble tablets** 2.5mg: 8 tablets daily (224 tablets over 4 weeks) 5mg: 4 tablets daily (112 tablets over 4 weeks) 10mg: 2 tablets daily (56 tablets over 4 weeks) 20mg: 1 tablet daily (28 tablets over 4 weeks) **Granules in capsules for opening (please note it is unlikely these quantities will be prescribed)** 0.5mg: 40 capsules daily (1120 capsules over 4 weeks) 1mg: 20 capsules daily (560 capsules over

		4 weeks) 2mg: 10 capsules daily (280 capsules over 4 weeks) 5mg: 4 capsules daily (112 capsules over 4 weeks)
Methylprednisolone 2mg, 4mg, 16mg, 100mg tablets Brand: Medrone®	4mg	2mg: 2 tablets daily (56 tablets over 4 weeks) 4mg: 1 tablet daily (28 tablets over 4 weeks) 16mg: 1 tablet daily (28 tablets over 4 weeks) 100mg: 1 tablet daily (28 tablets over 4 weeks)

Ref: PrescQIPP: Implementing the NatPSA steroid card alert.
https://www.prescqipp.info/media/5486/implementing-the-steroid-card-safety-advice-v22-hot-topic-april-2021.pdf

Appendix 2: Inhaled corticosteroids

Note if the patient is on more than one steroid, work out the steroid equivalence manually.

Inhaled corticosteroids	Threshold dose	Dose per day (and 4 week quantity) for which NHS Steroid Emergency Card should be issued
Beclometasone dipropionate		
Dry powder inhaler: Easyhaler® Beclometasone	>1000mcg	200mcg inhaler - six or more puffs per day (1 inhaler)
Clenil Modulite® Soprobec®	>1000mcg	200mcg inhaler - six or more puffs per day (1 inhaler) 250mcg inhaler – five or more puffs per day (1 inhaler)
Qvar®, Fostair®, Kelhale®	>500mcg	100mcg inhaler – six or more puffs per day (1 inhaler)
Budesonide		
Dry Powder Inhaler: Easyhaler® Budesonide, Budelin Novolizer®	>1000mcg	200mcg inhaler – six or more puffs per day (1 inhaler for Easyhaler Budesonide, 1.7 inhalers for Budelin Novolizer) 400mcg inhaler – three or more puffs per day (1 inhaler)
Turbohaler: Pulmicort®, Symbicort®	>1000mcg	200mcg inhaler – six or more puffs per day (1.4 inhalers) 400mcg inhaler – three or more puffs per day (1.4 inhalers)
Ciclesonide		
Aerosol Inhaler: Alvesco®	>320mcg11	160mcg inhaler – three or more puffs per day (1 inhaler)
Fluticasone propionate		
Aerosol Inhaler: AirFluSal®, Aloflute®, Combisal®, Flixotide®, Flutiform®, Sereflo®, Seretide® Evohaler®, Sirdupla®	>500mcg2	100mcg inhaler – 6 puffs or more per day (2.8 inhalers) 125mcg inhaler – 5 puffs or more per day (1.16 inhalers) 250mcg inhaler – 3 puffs or more per day (1.4 inhalers for Flixotide & Seretide, 1.16 inhalers for Flutiform) 500mcg inhaler – 2 puffs or more per day (1 inhaler)
Dry Powder Inhaler: AirFluSal® Forspiro®, Fusacomb® Easyhaler®, Seretide® Accuhaler®, Stalpex®	>500mcg2	100mcg inhaler – 6 puffs or more per day (2.8 inhalers) 250mcg inhaler – 3 puffs or more per day (1.4 inhalers) 500mcg inhaler – 2 puffs or more per day (1 inhaler)
Fluticasone Furoate		
Dry powder inhaler: Relvar Ellipta®, Trelegy Ellipta®	>100mcg12	184mcg inhaler – 1 puff per day (1 inhaler)
Mometasone furoate		
Dry Powder Inhaler: Asmanex®	>400mcg11	200mcg inhaler – 3 puffs or more per day (1.4 inhalers) 400mcg inhaler – 2 puffs or more per day (1 inhaler)

Ref: PrescQIPP: Implementing the NatPSA steroid card alert.
https://www.prescqipp.info/media/5486/implementing-the-steroid-card-safety-advice-v22-hot-topic-april-2021.pdf

Appendix 3: Injectable steroids

Injectable steroids (local)*	**Equivalent dose to prednisolone 5 mg**	**Dose per day (and 4-week quantity) for which NHS Steroid Emergency Card should be issued**
Methylprednisolone suspension for injection 40mg/ml (1ml, 2ml and 3ml injections) Brand: Depo-Medrone®	4mg	0.8ml (32mg) every 8 days or 2.8ml (112mg) over 4 weeks
Triamcinolone hexacetonide suspension for injection 20mg/ml	4mg	5.6ml (112mg) over 4 weeks
Triamcinolone acetonide 50mg/5ml suspension for injection (10mg/ml) Triamcinolone acetonide 40mg/ml suspension for injection Brands: Adcortyl® Intra-articular/intradermal, Kenalog® intra-articular/intramuscular	4mg	10mg/ml injection: 11.2ml (112mg over 4 weeks) 40mg/ml injection 2.8ml (112mg over 4 weeks)
Hydrocortisone intra-articular injection 25mg/ml Brand: Hydrocortistab®	20mg RCP article suggests 25mg2	0.8ml to 1ml per day (20mg to 25mg) or 22.4ml to 28ml (560mg to 700mg over 4 weeks) Note: licenced dose is 5mg - 50mg injected into a maximum of 3 areas every 3 weeks8 which is unlikely to reach the threshold

* Note that these preparations are generally not used daily; single doses which are not repeated within a three week period are unlikely to lead to clinically relevant HPA-axis suppression in the majority of patients. Patients should be given a blue steroid treatment card.

Consider also giving an NHS Steroid Emergency Card if the patient is also within one of the other groups listed in the NatPSA and the RCP Guidance.

Ref: PrescQIPP: Implementing the NatPSA steroid card alert.
https://www.prescqipp.info/media/5486/implementing-the-steroid-card-safety-advice-v22-hot-topic-april-2021.pdf