Trust Standard Operating Procedure

University Hospitals Plymouth NHS Trust

Steroid Emergency Cards

Issue Date	Review Date	Version
June 2021	June 2024	1.0

Purpose

Guidance to support delivery and utilisation of Steroid Emergency Cards

This policy aims to provide a framework for utilising and deploying Steroid Emergency Cards, following the recent national patient safety alert, outlining how to procure and issue these to appropriate patients.

Who should read this document?

All clinical staff involved in the prescription, dispensing or administering of steroids.

Administration staff where steroids are routinely prescribed.

Pharmacy staff.

Key Messages

This new SOP supports justification of need, clinical use, staff training and card management.

Core accountabilities	
Author/Owner	Odran Farrell – Senior Critical Care & Surgery Lead Pharmacist Duncan Cripps – Lead Pharmacist for Electronic Prescribing & Honorary Associate Professor Elizabeth Moore - Diabetes Specialist Nurse/Service Line Director Dr R R Gandecha - Interim Deputy Chief Pharmacist *(MrParmS, MBA & PhD)*
Review	Medicines Governance Committee
Ratification	Deputy Medical Director – Paul McArdle
Dissemination (Raising Awareness)	Dr R R Gandecha - Interim Deputy Chief Pharmacist *(MrParmS, MBA & PhD)*
Compliance	Medicines Governance Committee

Links to other policies and procedures

Blue steroid card SOP (pharmacy only)
Non-medical Prescribing Policy
Medicines Management Policy and Standard Procedures
Management of Adverse Events Policy and Incident Management SOP.
Risk Management Policy and Procedures

Version History

1	June 2021	Final Document

The Trust is committed to creating a fully inclusive and accessible service. Making equality and diversity an integral part of the business will enable us to enhance the services we deliver and better meet the needs of patients and staff. We will treat people with dignity and respect, promote equality and diversity and eliminate all forms of discrimination, regardless of (but not limited to) age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage/civil partnership and pregnancy/maternity.

An electronic version of this document is available on Trust Documents. Larger text, Braille and Audio versions can be made available upon request.

Standard Operating Procedures are designed to promote consistency in delivery, to the required quality standards, across the Trust. They should be regarded as a key element of the training provision for staff to help them to deliver their roles and responsibilities.

University Hospitals Plymouth NHS Trust

Standard Operating Procedure (SOP)

Steroid Emergency Cards

1 Introduction

Cortisol plays a critical role in the body's response to stress. It increases vascular tone thereby sustaining blood pressure, it mobilises energy to vital organs and it activates the immune system. In a deficient state, patients are at risk of adrenal crisis where they will become hypotensive, weak and lethargic. This may progress to confusion, coma and may even be fatal if untreated. It is critical, therefore, that glucocorticoid medication is increased promptly in these patients (no increase in fludrocortisone is required as the additional glucocorticoid will address any mineralocorticoid deficiency). Any increase should be proportionate to the stressor.

A Steroid Emergency Card (adults) has been introduced as a reminder to healthcare professionals, when patients are admitted as an emergency/ when undergoing elective surgery or a procedure/ in adrenal crisis to ensure steroid treatment is given appropriately and promptly. Cards are available to order via Oracle, code "ESTC".

The card outlines first management steps in an emergency.

The blue steroid treatment card is unaffected by the introduction of the emergency treatment card and should continue to be given to patients.

2 Definitions

Adrenal insufficiency may occur as a **primary** (direct damage to the adrenal cortex) or **secondary** (damage to the upstream hypothalamic or pituitary pathways resulting in insufficient ACTH to stimulate the adrenal glands) endocrine condition.

Primary adrenal insufficiency (often termed Addison's disease) occurs when the adrenal cortex is destroyed by autoimmune disease, infection, septicaemia, haemorrhage, metastases or following adrenal surgery. Primary adrenal insufficiency is associated with both glucocorticoid (cortisol) and mineralocorticoid (aldosterone) deficiency and these patients will be taking daily replacement therapy with a glucocorticoid (hydrocortisone, prednisolone or dexamethasone) and a mineralocorticoid (fludrocortisone).

Secondary adrenal insufficiency is associated with just glucocorticoid (cortisol) deficiency and these patients will be taking daily replacement therapy with a glucocorticoid (hydrocortisone, prednisolone or dexamethasone) medication.

Adult non-endocrine patients who are taking supra-physiological glucocorticoid therapy may be vulnerable to developing **iatrogenic adrenal suppression** and adrenal insufficiency as a consequence of being prescribed steroid (glucocorticoid) medication for an inflammatory condition such as chronic obstructive airways disease, rheumatoid arthritis or inflammatory bowel disease.

3 Regulatory Background

This protocol has been developed in response to a national patient safety alert.

4 Key Duties

A. Prescribers

All prescribers who:

- Initiate steroid prescriptions must ensure that a Steroid Emergency Card is issued to all eligible patients, as outlined below.
- Issue a steroid emergency card must communicate the fact to the patient's GP.
- Undertake standard/scheduled reviews (e.g. in clinics or when authorising repeat prescriptions) must ensure all eligible patients prescribed steroids have been assessed, and where necessary issued a Steroid Emergency Card.
- Ensure that the patient has been counselled to support early recognition and treatment of adrenal crisis
- Admit, assess, examine and clerk patients are responsible for checking whether patients carry a steroid emergency card and are at risk of adrenal crisis, and highlighting in the medical notes, on CPL and on the drug chart or EPMA if the patient does carry a steroid emergency card .

B. Pharmacy Clinical Staff

Pharmacy clinical staff must:

- Check whether the patient has a steroid emergency card as part of the medicines reconciliation process.
- If the patient has a Steroid Emergency Card, please annotate CPL or EPMA is not already annotated, stating patient carries a Steroid Emergency Card.
- Annotate any discharge summary processed to state that the patient has or requires an emergency steroid card.

- Ensure that the patient has been counselled to support early recognition and treatment of adrenal crisis, ideally by the prescriber.

C. Pharmacy Dispensary Staff

Pharmacy dispensary staff must:

- Supply a Red Steroid Emergency Card if requested by Pharmacy Clinical Staff on any discharge or outpatient prescriptions. This is in addition to any (blue) Steroid Treatment Cards supplied as per department dispensing standards.
- Where medicines are being handed over to the patient or their representative directly, ensure that the patient has been counselled to support early recognition and treatment of adrenal crisis, if the patient hasn't been already counselled by the prescriber.

D. Clinical Nurse Specialists/Advanced Practitioner Prescribers:

All Clinical nurse specialists and advanced practitioners must:

- Ensure the patient has been assessed as to whether or not they are at risk of adrenal crisis as outlined in the guidance below.
- Ensure that a "NHS Steroid Emergency Card" is issued to all eligible patients, prior to the patient leaving the hospital / clinic and this is documented in their medical notes or CPL/EPMA.
- Ensure that the patient is counselled to support early recognition and treatment of adrenal crisis, as per the Counselling Checklist

E. Nurses

Ensure that patients are discharged with their Steroid emergency card if they have been issued one.

F. Ward/Clinic Administration Staff

Ensure that supplies of Steroid Emergency Cards are available for clinicians where requested. Card can be ordered via Oracle, code above and in Appendix 1.

5 Procedure to Follow

Which patients need to carry a steroid emergency card?

1. **ALL** patients with **primary adrenal insufficiency** (e.g. Addison's disease, congenital adrenal hyperplasia, bilateral adrenalectomy and adrenal haemorrhage);

2. **ALL** patients with **secondary adrenal insufficiency** (i.e. patients with hypothalamic/pituitary disease known to be steroid dependent or advised to take steroids for intercurrent illness);

3. Non-endocrine patients who are taking supra-physiological glucocorticoid therapy for inflammatory conditions at doses/durations that may suppress their own hypothalamic-pituitary-adrenal axis:

<table>
<tr><th>Medicine predisposing to adrenal insufficiency</th><th colspan="2">Give a steroid emergency card when:</th></tr>
<tr><td rowspan="4">Long term Oral glucocorticoids (4 weeks or longer)</td><td colspan="2">Prednisolone 5mg or more
Dexamethasone 500 microgram/day or more
Hydrocortisone 15 mg/day or more
Beclometasone 625 microgram/ day or more
Betamethasone 750 microgram/day or more
Budesonide 1.5 mg/day or more
Deflazacort 6mg/day or more
Methylprednisolone 4mg/day or more
Prednisone 5mg/day or more</td></tr>
<tr><td colspan="2">3 or more short courses of high dose oral steroids (doses above) within the last 12 months, and for 12 months after stopping. .</td></tr>
<tr><td colspan="2">Repeated courses of dexamethasone as an antiemetic in oncology regimens, and for 12 months after stopping. Give the emergency card on the first cycle of dexamethasone.</td></tr>
<tr><td colspan="2">Prolonged courses (>10 days) of dexamethasone for covid-19.</td></tr>
<tr><td rowspan="7">Inhaled steroids. For the duration of treatment and for 12 months after stopping</td><td>Beclomethasone dipropionate Non proprietary, Clenil, Easihaler or Soprobec</td><td>> 1000 mcg / day</td></tr>
<tr><td>Beclomethasone-HFA (extra fine particle inhalers
Qvar
Fostair® 200/6
Kelhale®</td><td>>500 mcg / day</td></tr>
<tr><td>Budesonide</td><td>> 500 mcg / day</td></tr>
<tr><td>Ciclesonide</td><td>≥ 480 mcg / day</td></tr>
<tr><td>Fluticasone propionate</td><td>> 500 mcg / day</td></tr>
<tr><td>Fluticasone furoate</td><td>> 100 mcg / day</td></tr>
<tr><td>Mometasone furoate</td><td>≥ 800 mcg / day</td></tr>
<tr><td>Inhaled glucocorticoids with any other form of glucocorticoid treatment (including potent/ very potent topical glucocorticoids, intra-articular injection or</td><td colspan="2"><table><tr><th>Medicine</th><th>Dose</th></tr><tr><td>Beclometasone (as non-proprietary, Clenil, Easihaler or Soprobec)</td><td>800-1000 microgram/ day or more</td></tr><tr><td>Beclometasone (as Qvar, Kelhale or Fostair)</td><td>400-500 microgram/ day or more</td></tr></table></td></tr>
</table>

<table>
<tr><td>regular nasal glucocorticoids)</td><td>
<table>
<tr><td>Budesonide</td><td>400-500 microgram/ day or more</td></tr>
<tr><td>Ciclesonide</td><td>320-480 microgram / day or more</td></tr>
<tr><td>Fluticasone</td><td>400-500 microgram/ day or more</td></tr>
<tr><td>Mometasone</td><td>400-800 microgram / day or more</td></tr>
</table>
</td></tr>
<tr><td>Topical</td><td>Patients being treated with large quantities of potent or very potent topical glucocorticoids (≥200g per week) used across a large area of skin for 4 weeks or more and those treated with potent or very potent topical glucocorticoids and significant amounts of other forms of glucocorticoid.
<table>
<tr><td>Topical Steroid Treatments</td><td>Potency of Steroid</td></tr>
<tr><td>Beclometasone dipropionate 0.025%</td><td>Potent</td></tr>
<tr><td>Betamethasone dipropionate 0.05% and higher [incl Dalonev, Diprosone, Dovobet, Enstilar, in combination with clotrimazole (incl Lotriderm) and salicylic acid (incl Diprosalic)]</td><td>Potent</td></tr>
<tr><td>Betamethasone valerate 0.1% and higher [incl Audovate, Betacap, Betesil, Betnovate, Bettamousse, and in combination with clioquinol, fusidic acid (incl Fucibet, Xemacort) or neomycin]</td><td>Potent</td></tr>
<tr><td>Clobetasol propionate 0.05% and higher [incl. Clarelux, ClobaDerm, Dermovate, Etrivex and in combination with neomycin and nystatin]</td><td>Very potent</td></tr>
<tr><td>Diflucortolone valerate 0.1% [incl Nerisone]</td><td>Potent</td></tr>
<tr><td>Diflucortolone valerate 0.3% [incl Nerisone Forte]</td><td>Very potent</td></tr>
<tr><td>Fluocinonide 0.05% [incl Metosyn]</td><td>Potent</td></tr>
<tr><td>Fluocinolone acetonide 0.025% [(incl. Synalar) and in combination with clioquinol (incl Synalar C)]</td><td>Potent</td></tr>
<tr><td>Fluticasone propionate 0.05% [incl Cutivate]</td><td>Potent</td></tr>
<tr><td>Hydrocortisone butyrate 0.1% [incl Locoid]</td><td>Potent</td></tr>
<tr><td>Mometasone 0.1% [incl Elocon]</td><td>Potent</td></tr>
<tr><td>Triamcinolone acetonide 0.1% [incl Aureocort]</td><td>Potent</td></tr>
</table>
</td></tr>
<tr><td>Rectal Glucocorticoids</td><td>Potent or very potent topical glucocorticoids applies to the rectal or genital areas and used at high dose (more than 30g per month) for more than 4 weeks, and for 12 months after stopping.</td></tr>
<tr><td>Intra-articular/ Intramuscular Glucocorticoid injections</td><td>3 or more intra-articular / IM glucocorticoid injections within the last 12 months, and for 12 months after stopping.</td></tr>
<tr><td>Patients prescribed any form of ongoing glucocorticoid at any dose in conjunction with any of the potent CYP3A4 enzyme inhibitors</td><td>
<table>
<tr><td>Potent Protease inhibitors:
Atazanavir
Darunavir
Fosamprenavir
Ritonavir (+/- lopinavir)
Saquinavir
Tipranavir</td><td>Antifungals:
Itraconazole
Ketoconazole
Voriconazole
Posaconazole</td><td>Antibiotics:
Clarithromycin—long term courses only</td></tr>
</table>
</td></tr>
</table>

Further information: **The new national guidance clarifies which patients are considered to be at risk of adrenal crisis.**	

5. Sick Day Rules Advice

Sick day rules advice should be given to the following groups who are at greater risk of significant HPA axis suppression. The advice must be supplied by the prescriber. They require cover with hydrocortisone if admitted to hospital unwell or when undergoing a surgical invasive procedure:

- Patients taking oral prednisolone 5mg or above (or equivalent dose of other oral glucocorticoids) for more than 4 weeks, and for 12 months after stopping oral steroids.
- Patients receiving intra-articular or intramuscular glucocorticoid injections who also use glucocorticoids by another route (eg inhaled steroids, oral steroids etc)
- Concomitant use of CYP3A4 enzyme inhibitors (see list below) and glucocorticoids (any route of administration except small amounts of topical mild or moderate potency glucocorticoid which should be assessed on a case by case basis)
- Patients with respiratory disease such as COPD and asthma on high dose inhaled steroids receiving repeated courses of oral steroids (3 or more courses over the past 6 months).

Individual departments/Service Lines may wish to adapt the above into their own set sick Day Rules advice. This should be overseen through appropriate governance channels.

6 Document Ratification Process

The design and process of review and revision of this procedural document will comply with The Development and Management of Formal Documents.

The review period for this document is set as default of five years from the date it was last ratified, or earlier if developments within or external to the Trust indicate the need for a significant revision to the procedures described.

This document will be reviewed by the Medicines Governance Committee and ratified by the Chair.

Non-significant amendments to this document may be made, under delegated authority from the Chair, by the nominated author. These must be ratified by the Chair and should be reported, retrospectively, to the Medicines Governance Committee.

Significant reviews and revisions to this document will include a consultation with named groups, or grades across the Trust. For non-significant amendments, informal consultation will be restricted to named groups, or grades who are directly affected by the proposed changes.

7 Dissemination and Implementation

Following approval and ratification, this Standard Operating Procedure will be published in the Trust's formal documents library and all staff will be notified through the Trust's normal notification process.

Document control arrangements will be in accordance with The Development and Management of Formal Documents.

The document author(s) will be responsible for agreeing the training requirements associated with the newly ratified document with the Chair and for working with the Trust's training function, if required, to arrange for the required training to be delivered.

8 Monitoring and Assurance

Monitoring will be via audit undertaken and co-ordinated by the Medicines Safety Officer MSO, at their discretion.

9 Reference Material

University Hospitals Bristol and Weston NHSFT (2021) *Clinical Guideline – Steroid Emergency Cards*.

Society for Endocrinology Clinical Committee and the Royal College of Physicians Patient Safety Committee (2020) *Guidance for the prevention and emergency management of patients with adrenal insufficiency*
https://www.rcpjournals.org/content/clinmedicine/20/4/371

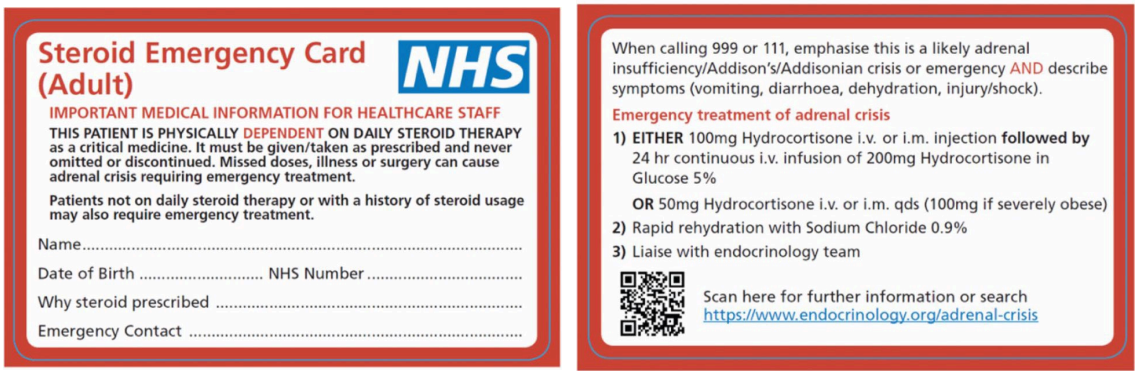
Association of Anaesthetists, The Royal College of Physicians, Society for Endocrinology (2020) *Guidelines for the management of glucocorticoids during the peri-operative period for patients with adrenal insufficiency*

Guidelines for the management of glucocorticoids during the peri-operative period for patients with adrenal insufficiency - Woodcock - 2020 - Anaesthesia - Wiley Online Library

Society for Endocrinology *Adrenal Crisis Information*
https://www.endocrinology.org/adrenal-crisis

Exogenous steroids, adrenal insufficiency and adrenal crisis - who is at risk and how should they be managed safely. David Erskine- Specialist Pharmacy Services (SPS) 01/03/21 https://www.endocrinology.org/media/4030/spssfe_supporting_sec_-final_hls-19022021-2-1.pdf

Sick Day Rules/Addison's Disease Self-Help Group
https://www.addisonsdisease.org.uk/newly-diagnosed-sick-day-rules



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

Ordering of Emergency Steroid cards are available to order via Oracle, code "ESTC".