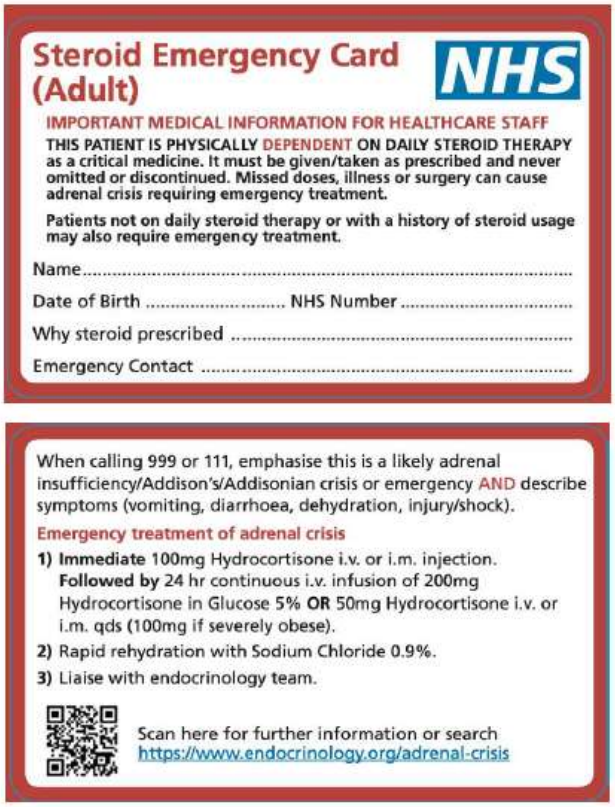
University Hospitals Sussex
NHS Foundation Trust

Guidance for Adults Who Need an Emergency Steroid Card and to Follow Sick Day Rules

Royal Sussex County Hospital, Princess Royal Hospital, Sussex Eye Hospital



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) **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

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Approved By: Medicines Governance Group, 13/05/2021 Review date: 13/05/2023

Adults Who Need an Emergency Steroid Card and to Follow Sick Day Rules *(See additional notes)*

- Patients with **primary adrenal insufficiency**
- Patients with **pituitary/hypothalamic disease** who are steroid dependant/ advised to take steroids for intercurrent illness.
- Patients taking **exogenous steroids as guided below**:
  ***Card or sick day rules needed for at least 12 months after stopping steroid therapy.**

Glucocorticoid Route	Needs An Emergency Steroid Card	Card + Follow Sick Day Rules Advice
Oral	• **Long term oral doses** in table 1 for **> 4 weeks**.* • **≥3 short courses** of high dose oral glucocorticoids **in the last 12 months** including those described in Table 2.* • **Repeated courses of dexamethasone** as antiemetic in oncology regimens when future cycles anticipated (Card given on first cycle).* • **>10 days of dexamethasone for severe Covid-19** (Card needed for 3 months post course).	**Oral steroids** equivalent or above doses in Table 1 for **> 4 weeks**.*
IV/ IM/Intra-articular	• **≥3 glucocorticoid injection doses** within the **last 12 months**.* • **Glucocorticoid injections** and use **glucocorticoids by ANY other route**. • **Repeated courses of dexamethasone** as antiemetic in oncology regimens when future cycles anticipated (Card given on first cycle).*	**Glucocorticoid injections** and also use **glucocorticoids by ANY other route.**

Inhaled	• **High doses** equivalent to that in table 3.*
	• **Intermediate dose** ranges in table 5 and **ANY other form of glucocorticoid** treatment including:
	  ○ Topical potent and very potent glucocorticoids in Table 4 for ≥4 weeks.
	  ○ Intra-articular injections.
	  ○ Regular nasal glucocorticoids.
		High dose inhaled steroids (Table 3) and receiving **repeated courses of oral steroids** (≥3 courses over last 6 months).

Topical	• **Potent/ very potent glucocorticoids** (Table 4) ≥200g/week used over a large area of skin **AND EITHER**:
	  ○ **≥4 weeks** treatment*
	  ○ Has **factors increasing absorption** considered case by case.*
	• **Potent/very potent glucocorticoids** (Table 4) and also taking **significant amounts of other forms of glucocorticoids** including short courses.
	• **Potent/ very potent glucocorticoids** (Table 4) applied to **rectal genital** area using **>30g per month for >4 weeks**.*	

Eye/Nasal Drops or Spray	• Indicative threshold of **>1000 micrograms daily** (unlikely to reach outside treating nasal polyps) • Total exposure via multiple routes and drug interactions should be considered. (Also see inhaled)	
Rectal	• Use the clinically significant doses (Table 6) for guidance. • **Less likely to cause HPA suppression if used alone but total exposure via multiple routes should be considered**. • Also see topical use on rectal mucosa.	

Interacting Drugs	• Patients prescribed **ANY form or dose of on-going glucocorticoids** adjunct with known **potent CYP3A4 inhibitors** (Table 7). This excludes small amount of mild or moderate topical glucocorticoids that can be assessed on case by case basis. • Other drugs that can increase risk of adrenal insufficiency and should be considered: opiates, marijuana, checkpoint inhibitors, adrenal enzyme inhibitors.

Additional notes

- There is an increased risk of adrenal insufficiency when steroids are used across multiple routes so **if there is any doubt or clinical concern then issue an emergency steroid card.**

- Patients with primary or secondary adrenal insufficiency will often be issued with an emergency hydrocortisone injection kit and taught how to use it as part of their hydrocortisone education with the endocrine specialist nurse. **There is no need for all other patients on exogenous steroids to be issued with an emergency hydrocortisone injection kit unless there is specific clinical concern.**

- In the presence of hypotension, tachycardia, vomiting, hyponatremia after surgery or an invasive post-procedure or protracted course of glucocorticoid there should be a low threshold for steroid cover.

- **For sick day rules advise outside of hospital see:** (Management of Intercurrent Illnesses in Patients Taking Corticosteroids) however a pragmatic approach to glucocorticoid replacement during major stress is required, considering the evidence available; blanket recommendations would not be appropriate (discuss with endocrine if needed).

- **Any patient carrying an emergency steroid card as listed above should have steroid cover when:**
  1. Acutely Unwell (Management of Intercurrent Illnesses in Patients Taking Corticosteroids)
  2. Having surgery (Peri-Operative / Peri-Procedural Management of Patients Taking Corticosteroids)
  3. Undergoing an invasive procedure such as endoscopy (Peri-Operative / Peri-Procedural Management of Patients Taking Corticosteroids)

- **For professional's responsibilities and the prescriber led supply process see Appendix 2 and for a visual of the card in Appendix 1**

Table 1 - LONG-TERM oral glucocorticoids (i.e. 4 weeks or longer)

(*) dose equivalent from BNF except (**) where dose reflects that described in the guideline by Simpson et al (2020) and (***) based on best estimate

Medicine	Dose*
Beclometasone	625 micrograms per day or more
Betamethasone	750 micrograms per day or more
Budesonide	1.5mg per day or more (***)
Deflazacort	6mg per day or more
Dexamethasone	500 microgram per day or more (***)
Hydrocortisone	15mg per day or more (**)
Methylprednisolone	4mg per day or more
Prednisone	5mg per day or more
Prednisolone	5mg per day or more

Table 2 - SHORT-TERM oral glucocorticoids

- **One week course or longer and has been on long-term course within the last year.**
- **One week course or longer and regular (≥3 in 12 months) need for repeated courses.**

Medicine	Dose (*)
Beclometasone	5mg
Betamethasone	6mg per day or more
Budesonide	12mg (***)
Deflazacort	48mg per day or more
Dexamethasone	4mg per day or more (**)
Hydrocortisone	120mg per day or more(**)
Methylprednisolone	32mg per day or more
Prednisone	40mg per day or more
Prednisolone	40mg per day or more

(*) dose equivalent from BNF except (**) where dose reflects that described in the guideline by Simpson et al (2020) and (***) based on best estimate

Table -3 HIGH dose inhaled glucocorticoids

Medicine	Dose *
Beclometasone (as non-proprietary, Clenil, Easihaler, Soprobec)	Over 1000 micrograms daily
Beclometasone (as Qvar, Kelhale or Fostair)	Over 500 micrograms daily (Check if using MART regimens)
Budesonide	Over 500 micrograms daily (Check if using MART regimens)
Ciclesonide	Over 480 micrograms daily (**)
Fluticasone	Over 500 micrograms daily
Mometasone	Over 800 micrograms daily (**)

(*) dose equivalent from BNF except (**) where dose reflects that given by London Respiratory Network

Table 4 - Topical potent and very potent steroids

Topical steroid treatments	Potency of steroids
Beclometasone dipropionate 0.025%	Potent
Betamethasone dipropionate 0.05% and higher	Potent
Clobetasol propionate 0.05% and higher	Potent
Diflucortolone valerate 0.1%	Potent
Diflucortolone valerate 0.3%	Very Potent
Fluocinonide 0.05%	Very Potent
Flucinolone acetonide 0.025%	Potent
Fluticasone propionate 0.05%	Potent
Hydrocortisone butyrate 0.1%	Potent
Mometasone 0.1%	Potent
Triamcinolone acetonide 0.1%	Potent

Currently all other topical glucocorticoids available in the UK mild or moderate potency

Table 5- INTERMEDIATE dose inhaled glucocorticoids thresholds suggested by The London Respiratory Network

Medicine	Dose
Beclometasone (as non-proprietary, Clenil, Easihaler, Soprobec)	800 - 1000 micrograms daily
Beclometasone (as Qvar, Kelhale or Fostair)	400 - 500 micrograms daily (Check if using MART regimens)
Budesonide	400 - 500 micrograms daily (Check if using MART regimens)
Ciclesonide	320 - 480 micrograms daily
Fluticasone	400 - 500 micrograms daily
Mometasone	400 - 800 micrograms daily

Table 6 - Rectal glucocorticoids- (clinically significant doses)

Formulation	Dose
Budesonide enema	Contains 2mg per dose
Budesonide rectal foam	Contains 2mg per dose
Prednisolone rectal solution	Contains 20mg per dose
Prednisolone suppositories	Contains 5mg per dose

Table 7 - CYP3A4 enzyme inhibitors that increase cortisol concentration and risk of HPA axis suppression

Potent Protease Inhibitors	Antifungals	Antibiotics
Atazanavir	Itraconazole	Clarithromycin- (long term courses only)
Darunavir	Ketoconazole	
Fosamprenavir	Voriconazole	
Ritonavir (+/- lopinavir)	Posaconazole	
Saquinavir		
Tipranavir		

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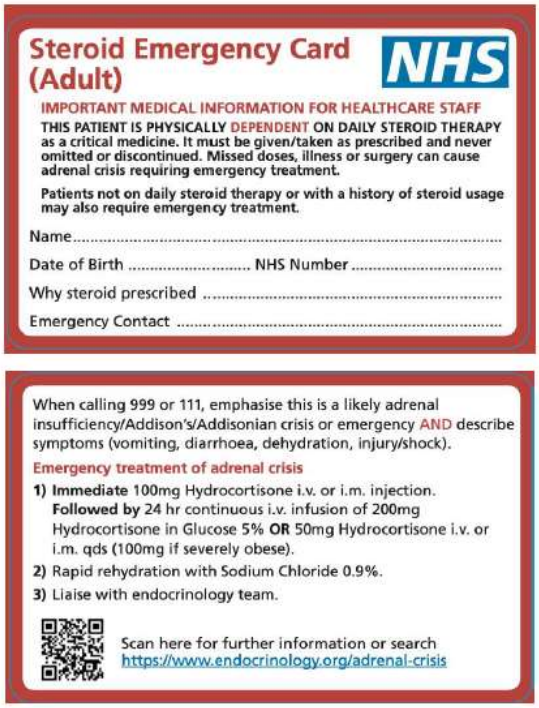
Appendix 1 – Emergency Steroid Card



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Available at: https://www.endocrinology.org/media/3873/steroid-card.pdf

Apendix 2 - Proccess and Responsibilities for Emergency Steroid Card Supply and Sick Day Rules Couselling

Inpatients

Steroid **Prescription** required.

Prescriber **identifies** patient requires an emergency steroid card and/or sick day rules using a 12 month **steroid history**.

Document rationale for steroid card, supply and duration of need for card/ sick day rules in the medical notes AND on the discharge summary.

The Prescriber Must:

-**Identify** if the patient has a emergency steroid card or needs one supplying.

- **Counsel** the patient if needed on the emergency steroid card and/or sick day rules .

-**Supply** an emergency steroid card by 'prescribing' an emergency steroid card on the drug-chart (paper/EPMA) AND the discharge summary. Electronic version available*

-Inform the ward pharmacist that a card needs to be supplied.

The Ward Pharmacist

Must: Supply an emergency steroid card from inpatient pharmacy if required as stated on the discharge summary.

Should: if involved in processing of a steroid prescription, **challenge** the prescriber when appropriate and feasible

Outpatients

Steroid **Prescription** required.

Prescriber **identifies** patient requires a emergency steroid card and/or sick day rules using a 12 month **steroid history.**

Document rationale for steroid card, supply and duration of need for card/ sick day rules in clinic letter and medical notes (if available).

The Prescriber Must:

-**Identify** if the patient has a emergency steroid card or needs one supplying.

- **Counsel** patient on the need to carry the emergency steroid card/ follow sick day rules.

-**Supply** via one of either:

1. Supply a card in person if the unit/clinic stocks emergency steroid cards.

2. 'Prescribe' an emergency steroid card on the outpatient prescription (Pharm@Sea and PRH pharmacy only).

3. Electronic version available if the patient is technologically able to print it out at home*

Pharm@sea or PRH Pharmacy

Must: Supply an emergency steroid card if an outpatient prescription asks to supply a card.

Should: if involved in processing of a steroid prescription, **challenge** the prescriber when appropriate and feasible.

- Patients admitted with an emergency steroid card should be discharged with the same card (assuming it is still appropriate)
- Patients who are started on steroids and clinically appropriate need an emergency steroid card issued.
- Patients who have lost their emergency steroid card should have it replaced (assuming it is still appropriate)
- **Patients started on or taking steroids will still need to be issued a blue steroid card issued where appropriate by pharmacy (this card is not a replacement)**