Managing Patients at Risk of Adrenal Insufficiency from Prescribed Steroids - Summary Clinical Guideline

Reference No: CG-PHARM/2021/011

Who should be Issued with a Steroid Emergency Card

The following are at risk of adrenal insufficiency (AI) and should be given cover with hydrocortisone if admitted to hospital unwell or when undergoing a surgical or invasive procedure.

a) Patients who have received a long-term course of glucocorticoids at a dose equivalent or higher than prednisolone 5mg (see Table 1)

Or

b) Prolonged courses of dexamethasone (>10 days) for severe Covid-19

Or

c) Patients who have received within the last 12 months, and for 12 months after stopping:

i. 3 or more short courses of high-dose oral glucocorticoids or intra-articular/intramuscular glucocorticoid injections

ii. Repeated courses of dexamethasone as an antiemetic in oncology regimens

iii. Inhaled steroids >1000mcg/day beclomethasone or >500mcg/day fluticasone (or equivalent dose of another glucocorticoid) – Table 3. If inhaled used in combination with other glucocorticoids, see full guidelines.

iv. Topical high-dose (>/= 200g/ week) potent or very potent glucocorticoids used across a large area of skin for 4 weeks or more, or factors increasing absorption.

v. Potent or very potent topical glucocorticoids applied to the rectal or genital areas and used at high dose (more than 30g per month) for more than 4 weeks

vi. Patients prescribed any form of ongoing glucocorticoid treatment (except small amounts of a mild or moderate topical glucocorticoid) in conjunction with medicines known to be potent CYP3A4 inhibitors

Table 1: Long-term oral glucocorticoids (ie 4 weeks or longer)

Medicine	**Dose (*)**
Beclometasone	625 microgram per day or more
Betamethasone	750 microgram 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

(*) 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: Inhaled glucocorticoid doses

Medicine	Dose (*)
Beclometasone (as non-proprietary, Clenil, Easihaler, or Soprobec)	More than 1000 microgram per day
Beclometasone (as Qvar, Kelhale or Fostair)	More than 500 microgram per day (check if using combination inhaler and MART regimen)
Budesonide	More than 500 microgram per day (check if using combination inhaler and MART regimen)
Ciclesonide	More than 480 microgram per day (**)
Fluticasone	More than 500 microgram per day
Mometasone	More than 800 microgram per day (**)

(*) dose equivalent from BNF (1) except (**) where dose reflects that given by London Respiratory Network (3)

Who should be additionally be given "sick day rules" advice if become unwell outside of hospital

a) 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 (see Table 1)
b) Patients receiving intra-articular or intramuscular glucocorticoid injections who also use glucocorticoids by another route (eg inhaled steroids, oral steroids etc)
c) Concomitant use of CYP3A4 enzyme inhibitors and glucocorticoids (any route of administration except small amounts of topical mild/moderate potency glucocorticoid)
d) 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 6 months).

For more endocrinology resources and information on sick day rules please go to https://www.endocrinology.org/adrenal-crisis

Who should have steroid cover for intercurrent illness, invasive procedures & Surgery

Any patients carrying a Steroid Emergency Card, that is all patients listed above, should have steroid cover when acutely unwell or if having surgery or undergoing an invasive procedure such as endoscopy.

In the presence of hypotension, tachycardia, vomiting, hyponatraemia after surgery or an invasive post-procedure, or protracted course of glucocorticoid such as for Covid-19 there should be a low threshold for steroid cover.

For further information on managing adrenal crisis, sick day rules or managing patients with adrenal insufficiency requiring invasive procedures:

Guidelines for Acute Adrenal Insufficiency (Adrenal Crisis)