



## Topical corticosteroids and HPA suppression

### Supporting information to the guidance on issuing the steroid emergency card in adults

Therapy & Guidelines sub-committee of the British Association of Dermatologists and the

Executive Committee of the British Society for Paediatric Dermatology

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### Background

A National Patient Safety Alert was issued jointly by NHS Improvement and NHS England national patient safety team, Royal College of General Practitioners, Royal College of Physicians and Society for Endocrinology, on the introduction of a [steroid emergency card](#) to support the early recognition and treatment of adrenal crisis in adults.

- To support implementation, the Society for Endocrinology, the Specialist Pharmacy Service and the British Association of Dermatologists have produced [more detailed guidance](#).
- The guidance can be used by primary and secondary care providers as necessary to implement in a more consistent way.

### Corticosteroid creams and ointments

Topical corticosteroids, particularly potent and very potent corticosteroids, only very rarely cause hypothalamic-pituitary axis (HPA) suppression. Doses in normal clinical practice are unlikely to cause this, but may contribute when used in combination with parenteral, oral, inhaled or intranasal corticosteroids. Consideration of this possible side effect should be given in long-term use of very potent topical corticosteroids to large areas under occlusion, including mucous membranes, particularly in the very young.<sup>1,2</sup>

### When is a steroid emergency card needed for adults using *topical* corticosteroids?

Expert consensus opinion is that HPA suppression through use of topical corticosteroids alone is extremely rare, particularly when used within current guidelines\* and with adequate review. This needs to be balanced carefully with the risks of under-treatment of the skin disease with insufficient use of topical corticosteroids. Therefore, issue of a steroid emergency card for adults using potent and very potent topical corticosteroids alone is not recommended routinely and should be assessed on a case-by-case basis.

\* [British Association of Dermatologists guidelines for treatment of genital lichen sclerosus](#) strongly recommend very potent topical corticosteroids daily for up to 3 months, followed by intermittent use. [NICE guidelines for assessment and treatment of psoriasis \[CG153\]](#) advise not to use very potent topical corticosteroids continuously at any site for more than 4 weeks at a time, or potent topical corticosteroids for more than 8 weeks at a time, and to aim for a break of 4 weeks between courses of treatment with potent or very potent topical corticosteroids.

As a guide, it is suggested that *adults* using a large quantity of potent or very potent topical corticosteroids on extensive areas [e.g.  $\geq 200$  g of very potent clobetasol propionate (i.e. Dermovate) per week] to body skin for 4 weeks or more may be at increased risk of HPA suppression.

<sup>1</sup> <https://pubmed.ncbi.nlm.nih.gov/17062046/>

<sup>2</sup> <https://pubmed.ncbi.nlm.nih.gov/22256990/>



## Should any adult taking inhaled corticosteroid and a potent/very potent topical corticosteroid also receive a card?

The risk of HPA suppression is increased with use of corticosteroid via multiple routes. Therefore, a lower threshold of inhaled corticosteroids could be considered in patients using potent or very potent topical corticosteroids for more than 4 weeks, as for nasal corticosteroids. As approximately 200 g weekly of very potent topical corticosteroid applied to body skin is required to reach the threshold for HPA suppression in adults, those with limited skin disease, applying to the skin for example very potent topical corticosteroid 30 g or potent topical corticosteroid 100 g every 6 months, are using less than 1% of the threshold dose.

Medicine	Dose
Beclometasone (as non-proprietary, Clenil, Easihaler or Soprobec)	800-1000 microgram per day
Beclometasone (as Qvar, Kelhale or Fostair)	400-500 microgram per day (check if using combination inhaler and MART regimen)
Budesonide	400-500 microgram per day (check if using combination inhaler and MART regimen)
Ciclesonide	320-480 microgram per day
Fluticasone	400-500 microgram per day
Mometasone	400-800 microgram per day or more

## Should there be a lower threshold of oral corticosteroid doses for adults also taking other forms?

Systemic corticosteroids are sometimes used in conjunction with topical corticosteroids. The current proposed threshold for issue of a steroid emergency card is for adults receiving  $\geq 5$  mg of oral prednisolone or equivalent for 4 weeks or more, which should identify most at-risk patients. However, the risk of HPA suppression is increased with use of corticosteroids via multiple routes. Therefore, prescribers must be aware of the added corticosteroid burden for patients having repeated short courses whilst on large quantities of potent or very potent topical corticosteroids for 4 weeks or more.

## What about children and young people?

NHS England has asked physicians to issue steroid emergency cards for *adult* patients who are at a risk of adrenal suppression through taking corticosteroids. In response, the British Society for Paediatric Dermatology has provided the following guidance for *paediatric* dermatology patients, their families and treating physicians:

1. Adrenal suppression with topical corticosteroid use alone is exceptionally rare. Standard prescriptions by dermatologists to manage inflammatory skin disease would not be associated with such risk. Concern would only ever be with inappropriate use, e.g. if very potent topical corticosteroids are used on large areas of the body continuously for a long time.
2. Therefore, it is not necessary to issue steroid emergency cards routinely for children and young people who are only on topical corticosteroids.
3. Where children and young people additionally receive corticosteroids through other routes (e.g. intranasal, inhaled or oral), the treating physician needs to take these into account and then decide whether a steroid emergency card is required as per NHS England guidance.