

## DRUG INFORMATION

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## CLINICAL PHARMACOLOGY

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### SAFETY OF TOPICAL CORTICOSTEROIDS IN PREGNANCY

#### Question:

A patient is in the second trimester of pregnancy and has some interdigital dermatitis. What is the safety of topical corticosteroids in pregnancy?

#### Answer:

There is large variation in the percent absorption of topical corticosteroids between different anatomical sites. Systemic absorption for hydrocortisone has been described as follows: forearm - 1%, scalp - 4%, forehead - 7%, scrotum - 36%<sup>[1]</sup>. However, many factors alter the magnitude of absorption such as the hydration of the skin, the use of occlusive dressings, and the vehicle eg ointment versus cream<sup>[1]</sup>. If 1g of 1% hydrocortisone cream (= 10mg hydrocortisone) was applied to the forearm, approximately 100mcg (0.1mg) would reach the maternal circulation. Foetal exposure to corticosteroids may be reduced by placental metabolism<sup>[2,3]</sup>.

Corticosteroids are not considered to be associated with adverse foetal outcomes when administered systemically or via inhalation for conditions such as inflammatory bowel disease or asthma<sup>[1-4]</sup>. Under these circumstances, the benefits of using corticosteroids are likely to outweigh any risks. There have been isolated reports of neonatal effects including cushingoid symptoms and growth retardation following maternal use of systemic corticosteroids<sup>[1]</sup>.

Liberal use of emollients would normally form the first-line treatment for minor inflammatory skin complaints in pregnancy. This would be coupled with appropriate lifestyle changes such as avoidance of soaps and detergents. Corticosteroids may be used if these measures fail to confer sufficient benefit<sup>[5,6]</sup>. The lowest potency steroid should be used for the shortest possible time.

#### Conclusions:

Foetal corticosteroid exposure following maternal application of a topical preparation interdigitally is likely to be minimal if a small amount is applied for a short period of time. Therefore, we would consider topical corticosteroids to pose very little risk to the developing foetus. However, as always, it would be prudent to minimise exposure by using the lowest effective strength (eg hydrocortisone 1.0%) for the shortest possible time.

#### References:

1. Drugdex, Micromedex database
2. Briggs GG et al. Drugs in pregnancy and lactation (5th ed), 1999
3. Rubin P (ed). Prescribing in Pregnancy (2nd ed), 1995
4. Parfitt K. Martindale (32nd ed), 1999
5. Speight T, Holford N. Avery's Drug Treatment (4th ed), 1997
6. Australian Medicines Handbook 1998

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