

Effective use of topical corticosteroids by primary care providers:

There's an app for that!

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Abstract

Purpose:

To develop and disseminate an innovative, freely-available, evidence-based app to support point-of-care topical corticosteroid prescribing. The second objective was to investigate the effect of the app on topical corticosteroid prescribing by primary care physicians.

Scope The literature has shown that patients with dermatologic conditions may not receive appropriate management by primary care physicians (PCPs). PCPs have been shown to prescribe either inappropriately high-potency TCS or, conversely, inappropriately low-potency TCS. Research showed that when apps are used by clinicians they have better clinical decision-making and improved patient outcomes.

Methods The app was developed using recommendations derived from a systematic literature review of clinical practice guidelines. App design and functionality was developed in iterative rounds by a multidisciplinary group of professional app designers, PCPs (3), and dermatology providers (3). To evaluate the effect of the app on actual prescribing, a second group of PCPs at Penn State were recruited to use the app in clinical practice and were evaluated for three months.

Results There was a change in prescription habits, namely a shift toward high-potency steroids. Low-potency prescriptions decreased from 25% to 22.6% and high-potency prescriptions increased from 16.0% to 19.0% with app use. There was an increase in gel (1.0% to 2.0%) and solutions (1.9% to 3.1%) vehicles used. Container size also shifted toward higher volumes prescribed.

Publications and Products:

- Peer-reviewed Publication: Burbach L, Butt M, Schlegel D, Felix T, Butts J, Kirby JS. Clinical decision support for topical corticosteroid therapy. *Journal of the American Academy of Dermatology*. 2018. [in preparation]
- Website: <https://www.padermatology.org/corticream-calculator.html>
- App [Apple and Android stores, free for download]: **CORTICOCREAM CALCULATOR APP**