



*We customize individual prescriptions  
for the specific needs of our patients.*

**JANUARY 2013**

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**PRESCRIPTION COMPOUNDING FOR**

**DERMATOLOGY**

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2525 W. Carefree Hwy. Bldg. 1 Site 106

Phoenix, AZ 85085

Phone: (623) 806-1300

Fax: (623) 806-1304

[www.CCV2Rx.com](http://www.CCV2Rx.com)

## WARTS

The following study found that topical immunotherapy with SADBE (squaric acid dibutylester) is a relatively safe and effective alternative treatment in the management of multiple and resistant cutaneous warts in children -"Use of squaric acid dibutylester (SADBE) for cutaneous warts in children" ([Pediatr Dermatol](#). 2000 Jul-Aug;17(4):315-8).

### ABSTRACT

"We evaluated the efficacy of squaric acid dibutylester (SADBE) contact immunotherapy for the treatment of warts on a series of 188 children. Included in the study were those children who satisfied at least two of the following criteria: single or multiple sites with several warts, warts resistant to repeated medical and/or surgical treatments, recurrent multiple warts, and patient or parent refusal to undergo destructive or surgical treatment. Excluded from the study were children with single warts or with flat warts located exclusively on the face and children less than 2 years of age. Treatment consisted of twice weekly applications of serial dilutions of SADBE (0.03-3%) for no more than 10 weeks. Of the 148 children who completed the study, 124 (84%) showed complete clinical resolution with no significant side effects. Of those with total clinical resolution, 101 completed a 24-month follow-up with no relapses. Twenty-four (16%) children were nonrespondent. No apparent correlation between treatment response and age, gender, anatomic site, lesion type, or atopy was found. Contact immunotherapy with SADBE is a relatively safe and effective alternative treatment in the management of multiple and resistant cutaneous warts in children." PMID: 10990585

With our state of the art compounding lab, and pharmaceutical knowledge and experience, we can compound squaric acid dibutylester into a topical solution in a variety of strengths.

The following study found that SADBE topical immunotherapy is a safe, effective option for home therapy of warts in children- "Squaric acid immunotherapy for warts in children" ([J Am Acad Dermatol](#). 2000 May;42(5 Pt 1):803-8).

### ABSTRACT

**BACKGROUND:** Warts are a common pediatric skin infection caused by human papillomavirus (HPV). Spontaneous clearance of warts involves anti-HPV immunity, which may be enhanced by contact sensitizers. Squaric acid dibutylester (SADBE) is a non-mutagenic sensitizing agent useful for immunotherapy of alopecia areata.

**OBJECTIVE:** We hypothesized that SADBE home application might be effective therapy for warts.

**METHODS:** An open-label, retrospective study of 61 children with warts was performed. Sensitization with 2% SADBE on the forearm was followed with home application of 0.2% SADBE to warts 3 to 7 nights per week for at least 3 months.

**RESULTS:** Complete clearing occurred in 34 patients (58%), with a mean duration of therapy of 7 weeks. Partial clearing occurred in 11 (18%), and no response in 14 (24%). Clearance correlated with plantar distribution, wart duration under 2 years ( $P < .05$ ), and first-line therapy with SADBE. Mild side effects occurred in one third of patients, were limited most commonly to mild erythema at the site of sensitization, and necessitated discontinuation of therapy in only 2 patients.

**CONCLUSION:** SADBE topical immunotherapy is a safe, effective option for home therapy of warts in children. PMID: 10775858

An example of how you might prescribe follows:

### COMPOUNDED MEDICATION

**Squaric Acid Dibutylester 1%**  
**Topical Solution**  
 5ml  
 Apply twice weekly to wart(s)

## MELASMA

The following clinical paper states that present data together with the previously shown non-cytotoxic and non-mutagenic characteristics of methimazole indicate that this agent could be considered as a safe skin-depigmenting compound for topical treatment of skin hyperpigmentary disorders in humans - "Safety of topical methimazole for the treatment of melasma. Transdermal absorption, the effect on thyroid function and cutaneous adverse effects" ([Skin Pharmacol Physiol. 2008;21\(6\):300-5](#)).

**ABSTRACT:** "Methimazole is an oral antithyroid compound that exhibits a skin-depigmenting effect when used topically. However, the effect of topical methimazole on thyroid function has not been reported. This study was aimed at assessing the safety of topical methimazole used to treat pigmented lesions, without affecting thyroid hormones due to systemic delivery. The pharmacokinetics of methimazole, either applied in the form of a 5% topical formulation to facial skin or taken orally in the form of a 5-mg tablet by 6 volunteers, were determined. In addition, the effect of long-term topical applications of 5% methimazole on the function of the thyroid gland in 20 patients with epidermal melasma was determined following 6 weeks of once-daily application. Cutaneous adverse effects of topical methimazole were determined. From 15 min up

to 24 h after application, methimazole was undetectable in the serum of the individuals receiving single topical methimazole dosing. Methimazole, however, was detected in serum after 15 min of oral administration and remained detectable in serum up to 24 h after administration. Long-term topical methimazole applications in melasma patients did not induce any significant changes in serum TSH, free thyroxine and free triiodothyronine levels. Topical methimazole was well tolerated by the patients and did not induce any significant cutaneous side effects. Present data together with the previously shown non-cytotoxic and non-mutagenic characteristics of methimazole indicate that this agent could be considered as a safe skin-depigmenting compound for topical treatment of skin hyperpigmentary disorders in humans." PMID: 18667842

We have the ability to compound methimazole into a topical gel that can be applied directly to pigmented lesions.

An example of how you might prescribe follows:

### COMPOUNDED MEDICATION

**Methimazole 5%**  
**Topical Gel**  
60gm  
Apply sparingly QD

## ACNE

The following review suggests that the efficacy of benzoyl peroxide may be enhanced by the presence of Vitamin E and tertiary amines - "Advancement in benzoyl peroxide-based acne treatment: methods to increase both efficacy and tolerability" (J Drugs Dermatol. 2009 Jul;8(7):657-61).

### ABSTRACT

**BACKGROUND:** Antibiotic resistance of Propionibacterium acnes (*P. acnes*) is a growing phenomenon in the wake of widespread use of topical and systemic antibiotics for acne vulgaris. Benzoyl peroxide has a proven track record of safety and efficacy, and can decrease reliance on antibiotics in the treatment of acne. **PURPOSE:** To review the literature for methods to increase the efficacy and tolerability of benzoyl peroxide (BPO).

**METHODS:** A PubMed literature search was done using the terms "benzoyl peroxide," "vehicle," "mechanism," and "delivery system." Relevant papers were reviewed for methods of increasing BPO efficacy and tolerability.

**RESULTS:** BPO in concentrations of 2.5%, 5% and 10% are equally effective at treating inflammatory acne. However, higher concentrations are associated with more adverse effects. The efficacy of BPO may be enhanced by the presence of Vitamin E and tertiary amines. BPO is also more efficacious if used in combination with topical retinoids than as a monotherapy. Novel vehicles including a microparticle delivery system and those with a hydrophase or urea base increase the tolerability of BPO without sacrificing efficacy.

**CONCLUSIONS:** Benzoyl peroxide has a proven track record of safety and efficacy for the treatment of acne. Recent discoveries have provided new methods of increasing the efficacy and tolerability of topical BPO, making it useful as monotherapy for mild acne or as an adjunct in the treatment of moderate to severe acne vulgaris. PMID: 19588642

The following clinical paper discusses how vitamins are a natural constituent of human skin and are part of a system of antioxidants that protect the skin from oxidative stress - "Topical vitamins" (J Drugs Dermatol. 2008 Jul;7(7 Suppl):s2-6).

**ABSTRACT:** "Vitamins are a natural constituent of human skin and are part of a system of antioxidants that protect the skin from oxidative stress. There has been an increased interest in the use of natural antioxidants such as vitamins to help restore dermal antioxidant activity. Vitamins A, C, E, and B3 have been shown to have potent antioxidant and anti-inflammatory properties, but to achieve optimal effectiveness, products must be delivered in appropriate formulations. Products containing alpha-tocopherol (vitamin E), L-ascorbic acid (vitamin C), retinol (vitamin A), and niacinamide (vitamin B3), are effective for the treatment of photoaging. These compounds have also shown effectiveness in the treatment of inflammatory dermatoses, acne, and pigmentation disorders and wound healing. There is emerging evidence that combinations of vitamins have additive effects that provide enhanced efficacy compared with individual compounds." PMID: 18681152

With our state of the art compounding lab and pharmaceutical knowledge and experience, we can compound benzoyl peroxide and vitamin E into one topical gel.

An example of how you might prescribe follows:

### COMPOUNDED MEDICATION

**Benzoyl Peroxide 10%/Vitamin E 200iu/ml**

**Topical Gel**

60ml

Apply sparingly QD-BID

Prescriber Name \_\_\_\_\_

Prescriber Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Date \_\_\_\_\_ Patient Name \_\_\_\_\_ DOB \_\_\_\_\_

Address \_\_\_\_\_ City/State/Zip \_\_\_\_\_ Phone \_\_\_\_\_

Patient will pick up at pharmacy       Please ship to patient

Bill Insurance Plan: \_\_\_\_\_ ID# \_\_\_\_\_

*All topical compound %s are per 1 ml or 1 gm unless otherwise noted*

#### Warts

Squaric Acid Dibutylester 1%

Topical Solution

Quantity 5ml

Directions: Apply twice weekly to wart(s)

#### Melasma

Methimazole 5%

Topical Gel

Quantity 60gm

Directions: Apply sparingly QD

#### Acne

Benzoyl Peroxide 10% / Vitamin E 200 iu/ml

Topical Gel

Quantity 60ml

Directions: Apply sparingly QD-BID

#### Directions

\_\_\_\_\_  
\_\_\_\_\_

Prescriber's Signature \_\_\_\_\_ Refills: 1 2 3 4 5 6 7 8 9 10 11 12 NR

