

UC Davis

Dermatology Online Journal

Title

Sunscreen regulations and use of anti-inflammatory agents in sunscreens

Permalink

<https://escholarship.org/uc/item/03s394x7>

Journal

Dermatology Online Journal, 19(7)

Authors

Haydar, Kamran
Burkhart, Craig G.

Publication Date

2013

DOI

10.5070/D3197018969

Copyright Information

Copyright 2013 by the author(s). This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Letter

Sunscreen regulations and use of anti-inflammatory agents in sunscreens

Kamran Haydar MS MD Candidate, Craig G. Burkhart MD

Dermatology Online Journal 19 (7): 17

University of Toledo College of Medicine, Department of Internal Medicine, Section Dermatology

Correspondence:

Kamran Haydar MS, MD, Candidate
University of Toledo, College of Medicine
Toledo, Ohio, USA
haydar@umich.edu

The Food and Drug Administration (FDA) has been more proactive in regulating sunscreen products. In 2011, the FDA publicized a set of new requirements for marketing over-the-counter sunscreens in the United States. The primary goal of the new FDA requirements was to provide consumers with a clear understanding of the level of protection actually provided by a sunscreen. Furthermore, information about protection against ultraviolet A radiation, associated with early aging and skin cancer, was to be clarified. With the new regulations, sunscreen products that provide protection against ultraviolet A and ultraviolet B would be allowed to be marketed as broad-spectrum sunscreen [1].

In addition, in July 2013, the FDA plans to discuss the safety of current ingredients in sunscreen products and new ingredients being proposed as additions to protect against ultraviolet A [2]. In recent years, manufacturers of sunscreen products have made progress in actually utilizing agents that screen out ultraviolet A; in the past, many claims stating protection against ultraviolet A were not factually correct [3]. It is commendable that manufacturers of sunscreen products and the FDA have worked together to improve the accuracy of advertised sunscreen protection and the safety of the ingredients used in sunscreen products.

However, there are still questions regarding the accuracy of the sun protection factor (SPF), which is stated on sunscreen products that contain ingredients with anti-inflammatory properties (e.g. abisabolol, allantoin, and 18-b-glycyrrhetic acid) [4]. These anti-inflammatory ingredients cause a decrease in erythema, which can lead to overestimation of the SPF of a sunscreen product. Consequently, when used by consumers, toxic and immunosuppressive effects may occur without demonstrating erythema.

In conclusion, there have been great strides made in the labeling accuracy and safety of sunscreen products. However, further research regarding anti-inflammatory ingredients and their effect on the measured SPF of sunscreen products needs to be conducted. In addition, the FDA should caution manufacturers not to use anti-inflammatory ingredients in their sunscreen products until more research has been conducted on the potential harm of these additives.

References

1. Questions and Answers: FDA announces new requirements for over-the-counter (OTC) sunscreen products marketed in the U.S., Food and Drug Administration, accessed March 20, 2013, <http://www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/understandingover-the-countermedicines/ucm258468.htm>
2. Alicia Ault. Newly labeled sunscreens surface on shelves. Skin & Allergy News Digital Network (2013), http://www.pediatricnews.com/index.php?id=7810&tx_ttnews%5Btt_news%5D=139873&cHash=f07aeca31abaf66bdb60abf6074ae51d
3. Steven Q. Wang, Paul R. Tanner, Henry W. Lim, J. F. Nash. The evolution of sunscreen products in the United States – a 12-year cross sectional study Photochem. Photobiol. Sci., 2013,12, 197-202 [PMID: 23032968]
4. Céline Couteau, Catherine Chauvet, Eva Paporis, Laurence J. M. Coiffard. Influence of certain ingredients on the SPF determined in vivo. Arch Dermatol Res (2012) 304:817–821 [PMID: 22707250]