

Most Common Dermatologic Topics Published in Five High-Impact General Medical Journals, 1970-2012: Melanoma, Psoriasis, Herpes Simplex, Herpes Zoster, and Acne

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Abstract

Context: General practitioners frequently encounter skin diseases and are accustomed to diagnosing the most common dermatologic conditions.

Objective: We sought to determine the most common dermatologic topics published in five high-impact general medical journals (*New England Journal of Medicine*, *The Lancet*, *the Journal of the American Medical Association*, *British Medical Journal* (now *The BMJ*), and *Annals of Internal Medicine*).

Design: We conducted an independent search of the Thomson Reuters' Science Citation Index for common dermatologic topics, limited to the period 1970 to 2012.

Main Outcome Measure: Total number of publications dealing with each dermatologic topic considered.

Results: The five most common dermatologic topics published were melanoma, psoriasis, herpes simplex, herpes zoster, and acne. Melanoma and psoriasis were the top two dermatologic topics published in each journal except for *Annals of Internal Medicine*.

Conclusions: Internists frequently diagnose herpes simplex, herpes zoster, and acne, which are also common dermatologic topics published. Although internists infrequently diagnose melanoma and psoriasis, they are major topics for general medical journals because of their increased community awareness, major advancements in therapeutic research, and their nondermatologic manifestations.

Introduction

Skin diseases are commonly encountered by general practitioners, and in today's health care system, most patients are evaluated first by their primary care physician before seeing a dermatologist. It is estimated that 6% of primary care outpatient visits are skin-related, and 60% of cutaneous diagnoses are made by nondermatologists.¹ As the role of the general practitioner continues to grow, it remains imperative that these physicians are equipped to manage general dermatologic conditions.

To determine which skin diseases internists most commonly encounter, Feldman et al² analyzed the National Ambulatory Medical Care Survey data from 1990 to 1994. The top five der-

matologic diagnoses made by internists during this period were dermatitis, bacterial skin infections, tinea, acne vulgaris, and herpes zoster. By highlighting these common diagnoses, it was anticipated that skin disease educational programs for internists would be tailored to these diseases. Moreover, this study demonstrated that diagnoses such as psoriasis, actinic keratosis, seborrheic keratosis, skin cancer, and benign tumors were commonly made by dermatologists but not by internists. These findings elucidated the overlapping yet differing role of the dermatologist and the internist, espousing the need for further communication and alliance in diagnosing a wide range of skin diseases.

The purpose of our study was to determine the most common dermatologic topics published from 1970 to 2012 in five high-impact general medical journals. We sought to analyze whether these journals, having the largest readership in medicine, targeted the common dermatologic diagnoses made by internists or focused on skin diseases more commonly diagnosed by dermatologists.

Methods

We analyzed data from the Thomson Reuters Science Citation Index. The five high-impact general medical journals we considered, based on the highest impact factors, were the *New England Journal of Medicine (NEJM)*, *The Lancet*, *the Journal of the American Medical Association (JAMA)*, *British Medical Journal* (now *The BMJ*), and *Annals of Internal Medicine*. For each of these journals, we conducted an independent search for each of the dermatologic topics included in the study, limited to the years 1970 to 2012. The topics chosen were a modified list from the top dermatologic diagnoses made by internists and dermatologists² (Table 1).

Two independent reviewers analyzed search results to determine whether an article met the dermatologic topic under consideration. A consensus was achieved for all articles included. All types of publications (original research, case reports, review articles, meta-analyses, editorials, etc) were eligible for the study. If an article dealt with more than one possible topic, the topic that best fit the primary objective of the article was chosen. Topics without 20 or more papers in any of the 5 general medical journals were not mentioned.

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Results

A total of 2627 articles dealing with at least 1 of the 24 dermatologic topics mentioned in Table 1 were included in the study. From our combined data, the top 5 dermatologic topics published in the 5 high-impact general medical journals were melanoma (708 articles), psoriasis (455), herpes simplex (366), herpes zoster (253), and acne (165), as shown in Table 1. *The Lancet* had the highest total number of dermatologic publications (744), followed by *British Medical Journal* (661), *NEJM* (630), *JAMA* (419), and *Annals of Internal Medicine* (173).

Melanoma was overwhelmingly the most common dermatologic topic in each of the journals except for *Annals of Internal Medicine* (Figure 1). In *NEJM*, the second most common topic was psoriasis (100 articles), followed by herpes simplex (97) and herpes zoster (71). The other dermatologic topics were relatively uncommon in that journal. In *The Lancet*, the second most common topic was also psoriasis (144), followed by herpes simplex (102) and acne (49). There were also notable contributions to the dermatologic literature about herpes zoster (40), atopic dermatitis/eczema (40), urticaria (32), and abscess (28).

In *JAMA*, herpes simplex (with 68 articles) was the second most common dermatologic topic, followed by psoriasis (48) and herpes zoster (46). Acne (36), urticaria (30), and squamous cell carcinoma (22) followed in number of contributions. Melanoma (158) and psoriasis (134) were 2 greatly favored topics in the *British Medical Journal*. Herpes zoster (63), acne (60), and

herpes simplex (56) made up the next highest proportion of topics, followed by abscess (35), urticaria (27), atopic dermatitis/eczema (26), and squamous cell carcinoma (22).

Annals of Internal Medicine was the only journal wherein melanoma (22) was not the most common dermatologic topic. In fact, melanoma was the fourth most prevalent. Preceding melanoma in prevalent articles was herpes simplex (43), herpes zoster (33), and psoriasis (29); see Figure 1.

Discussion

It has become customary for general practitioners to diagnose common skin conditions. For these physicians, primary sources for up-to-date information are general medical journals, namely the five high-impact journals (*NEJM*, *The Lancet*, *JAMA*, *British Medical Journal*, and *Annals of Internal Medicine*). By studying the prevalence of common dermatologic topics published in these journals, we attempted to provide insight into their emphasis on certain skin conditions.

Of the five high-impact general medical journals, we found that *The Lancet* and *British Medical Journal*, which have their foundation in the United Kingdom, published more articles on common dermatologic topics. In the United Kingdom, physicians must complete two years of foundation training and two years of core medical training before entering dermatology as a specialty.³ This is in contrast to the US, where medical school graduates are required to complete only one year of internal medicine, general surgery, or pediatrics internship before entering dermatology residency. Perhaps in the United Kingdom, dermatology is integrated more with internal medicine, leading to a greater number of dermatologic publications in their general medical journals.

In our analysis, we found that herpes simplex, herpes zoster, and acne were three of the top five dermatologic topics published. This coincides with the fact that these topics were also among the top ten dermatologic diagnoses made by internists.² Melanoma and psoriasis, on the other hand, were the top two dermatologic topics published but are diagnoses rarely made by internists.²

As mentioned by Feldman et al,² melanoma, despite being rarely diagnosed by internists, is important to internal medicine because of its serious nature. Some consider the early detection of melanoma, which has a 5-year survival rate of 98% if detected early and 15% with distant metastasis,⁴ to be the responsibility of primary care physicians.⁵ Furthermore, a “new era” of targeted and immune-based therapies for melanoma has been ushered in by recent advancements in melanoma research.⁶ Many of these findings have gained publication in prestigious general medical journals.⁷⁻⁹ It is not surprising, therefore, that melanoma was the most common dermatologic topic published in 4 of the 5 high-impact general medical journals we studied.

Psoriasis, like melanoma, is another diagnosis infrequently made by internists but was found in our study to be the second most common dermatologic topic published. With a prevalence of 1% to 3%, psoriasis is likely to be encountered by general practitioners.¹⁰ Moreover, as a systemic inflammatory disease, psoriasis is compounded by psoriatic arthritis in 10% to 30% of cases.¹⁰ Psoriasis has also been associated with a significantly increased risk of myocardial infarction, stroke, and peripheral vascular disease, possibly because of accelerated atherosclerosis

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Table 1. Total number of articles for each dermatologic topic

Dermatologic topic	Number
Abscess	95
Acne	165
Actinic keratosis	15
Atopic dermatitis/eczema	88
Basal cell carcinoma	55
Carbuncle	0
Cellulitis	62
Contact dermatitis	37
Epidermoid cyst	0
Furuncle	6
Herpes Simplex	366
Herpes Zoster	253
Impetigo	18
Melanoma	708
Psoriasis	455
Pyoderma gangrenosum	29
Rosacea	16
Seborrheic dermatitis	8
Seborrheic keratosis	6
Squamous cell carcinoma	92
Stasis dermatitis	0
Tinea	31
Urticaria	120
Viral exanthem	3
Total	2627

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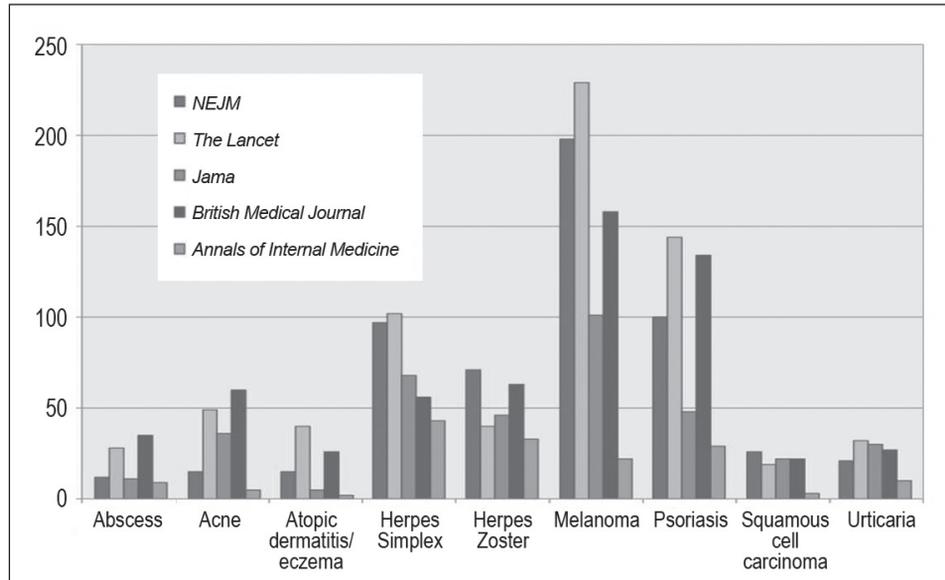


Figure 1. Frequency of common dermatologic topics mentioned in five high-impact general medical journals.

JAMA = Journal of the American Medical Association; NEJM = New England Journal of Medicine.

in the setting of an inflammatory state.¹¹ These systemic manifestations, as well as the increasing prevalence of this dermatologic condition, make psoriasis a very relevant disease to internal medicine and the general medical journals. We acknowledge limitations in our study. Access to journal articles may have been limited by our university's subscriptions, but all resources available were used to obtain articles. Certain articles that addressed multiple topics were categorized under one topic, considered the best fit by the reviewer. We referenced a study by Feldman et al,² who analyzed the National Ambulatory Medical Care Survey data from 1990 to 1994. Likely, diagnosing patterns of skin disease by internists may have changed since then, but to our knowledge, no similar analysis has yet been performed.

Conclusion

We believe our study achieved its primary purpose, to analyze the prevalence of common dermatologic topics published in high-impact general medical journals. We have demonstrated that certain dermatologic topics with increased relevance to internal medicine have greater numbers of publications. These findings are a testament to the value of these medical journals in providing relevant yet comprehensive information to general physicians, thus deserving the title of high-impact. ❖

Disclosure Statement

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