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Navigating the Dermatological Drug Cost Curve

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Changes in Retail Prices of Prescription Dermatologic Drugs From 2009 to 2015

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IMPORTANCE Physicians from many specialties as well as primary care prescribe dermatologic medications; as insurance formularies become increasingly restrictive and more patients are covered with high-deductible insurance plans, many patients are forced to pay high retail prices to obtain their medications.

OBJECTIVES To determine the changes in the prices of commonly prescribed dermatologic medications since 2009 and to identify trends in price increases for different classes of drugs.

DESIGN, SETTING, AND PARTICIPANTS Four national chain pharmacies received surveys requesting price data on commonly prescribed dermatologic drugs in 2009, 2011, 2014, and 2015. The initial survey requested information on 72 brand-name drugs. Subsequent surveys increased to eventually include 120 additional brand-name drugs and their generic alternatives when available. Owing to the frequency of prescription, diseases treated, or unusual price increases, 19 brand-name drugs surveyed in all 4 years were selected for final price trend analysis, which was conducted from August 1 to 15, 2015.

MAIN OUTCOMES AND MEASURES Retail prices of topical and systemic drugs for the treatment of various dermatologic conditions.

RESULTS Prices of surveyed brand-name drugs increased rapidly between 2009 and 2015. Of the 19 brand-name drugs analyzed, the retail prices of 7 drugs more than quadrupled during the study period. Among these 19 drugs, the mean price increase was 401% during the 6-year survey period, with the majority of the price increases occurring after 2011. Prices of topical antineoplastic drugs had the greatest mean absolute and percentage increase ($10 926.58 [1240%]). Prices of drugs in the antiinfective class had the smallest mean absolute increase ($333.99); prices of psoriasis medications had the smallest mean percentage increase (180%). Prices of acne and rosacea medications increased a mean of 195%, and prices of topical corticosteroids increased a mean of 290% during the study period. Selected generic drugs surveyed in 2011 and 2014 also increased a mean of 279% during the 3-year period.

CONCLUSIONS AND RELEVANCE The price of prescription dermatologic drugs rose considerably from 2009 to 2015, with the vast majority of price increases occurring after 2011. Percent increases for multiple, frequently prescribed medications greatly outpaced inflation, national health expenditure growth, and increases in reimbursements for physician services.

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Increasing costs of brand-name prescription drugs are causing concern for patients, physicians, and policy makers alike.[1] What should be done? Some in the pharmaceutical industry suggest that concerns are overblown because overall retail spending on prescription drugs has remained less than 12% of overall health care spending over the past 30 years.[2] But this perspective overlooks the fact that the use of lower-cost generic drugs has increased from 20% to more than 85% of all prescriptions dispensed during that time.[3] In addition, spiraling brand-name drug prices are substantially affecting the economy and patient care. Retail drug spending now accounts for 19% of employer-provided insurance benefits,[4] and nearly a quarter of respondents to a national survey currently taking a prescription drug reported that they or a family member did not fill a prescription in the last year due to cost.[5]

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The first step in developing solutions to address high drug prices is to get a better handle on the problem. In the February 2016 issue of *JAMA Dermatology*, Rosenberg and Rosenberg[6] provide such insight. Based on a survey of 4 national chain pharmacy stores, the authors documented changes in the cash price for a full course or month of treatment with 19 brand-name dermatological drugs in West Palm Beach, Florida, between 2009 and 2015. These drugs, selected from among 72 brand-name medications on the basis of "frequency of prescription, diseases treated, or unusual price increase during the survey period," included 5 corticosteroids, 4 products for acne and rosacea, 4 anti-infective agents, 3 antineoplastic drugs, and 3 products for psoriasis.

Even when accounting for selection bias—namely, a focus on drugs with the greatest price change—the study revealed troubling data. From 2009 to 2015, the cost of each drug increased substantially (range, 60%-1698%), far greater than the consumer price

index (10%) and medical inflation (22%) over the same period. The antineoplastic drugs had the greatest price increase (1240%, SD = 792%), followed in turn by anti-infective agents (309%, SD = 266%), corticosteroids (290%, SD = 184%), drugs for acne and rosacea (195%, SD = 133%), and drugs for psoriasis (180%, SD = 124%).

Why were these price increases possible? For 11 of 19 (58%) brand-name drugs in the sample, interchangeable generic drugs that cost on average 68% (SD = 5%) lower are available (eTable in the Supplement). Generic drugs are other manufacturers' versions of brand-name products made available at the end of the products' market exclusivities (see accompanying Patient Page in this issue). The US Food and Drug Administration (FDA) certifies generic drugs as bioequivalent with their brand-name counterparts if the generic products have the same chemically active ingredient in the same dosage form and route of administration—that is, able to deliver the same quantity of this chemically active ingredient to a target site for therapeutic effect.

When generic versions of drugs become available, the manufacturer of the brand-name versions might increase its price, seeking to maintain a revenue stream from physicians and consumers who will continue to use brand-name versions regardless of cost. State drug product selection laws facilitate substitution of prescriptions for brand-name medications with bioequivalent generic drugs at the level of the pharmacy. However, in certain states like Florida,[7] pharmacists must obtain patient consent prior to substitution. In addition, physicians can circumvent generic substitution by instructing pharmacists to "dispense as written." In one study, physicians and patients requested about 5% of 5.6 million prescriptions from a large pharmaceutical benefits manager to be dispensed as written.[8]

Ensuring optimal generic substitution can help mitigate the economic consequences related to high brand-name drug prices. Price-inelastic demand is driven in part by skepticism on the part of physicians and patients about the clinical interchangeability of generic drugs. Various reviews, however, have found no reliable difference in the clinical effects of brand-name and generic products among a diversity of product types, including dermatological drugs.[9] Sources of skepticism particularly relevant among dermatologists and patients with dermatologic conditions may be worth further evaluation.

Close examination of the sample in the study by Rosenberg and Rosenberg[6] also reveals that the FDA first approved the chemically active ingredients for 14 of 19 drugs (74%) more than 25 years ago. How is it that the high dermatology drug costs they identified are not related to innovative new products, but instead to a gel pump version of tretinoin (active ingredient FDA approval in 1971) or alternate formulations of clindamycin (1972) and diclofenac (1988)? Two primary reasons: permissive US laws that allow patents to be easily obtained on new formulations of old active drug ingredients and the expenditure of substantial resources by brand-name pharmaceutical companies on marketing these "new and improved" products. Such marketing includes direct-to-consumer advertising and in-person office visits by sales representatives, who develop close ties with dermatologists and engage in widespread use of "baiting" techniques such as providing free samples. By contrast, generic medicines are generally not marketed. But how many patients receiving Aqua's patented ketoconazole gel[10] would have been equally well served clinically with generic ketoconazole cream, shampoo, or foam?

Therapeutic substitution, or the replacement of a brand-name drug with another drug in the same class that could provide similar clinical effect, can also counteract high drug prices. Physicians should preferentially prescribe these effective, lower-cost options, and policy makers could advocate for changes to state drug product selection laws to allow substitution of drug products demonstrated to be clinically interchangeable even though they are not pharmaceutically equivalent. Such changes would undermine the substantial incentives that currently exist for investment in developing easily patentable new formulations of older products that can be successfully marketed to dermatologists, instead of developing the next generation of transformative new drugs in dermatology.

Although there is no one approach to addressing the multifaceted issue of high drug prices, all physicians can take specific actions to mitigate the effect of expensive drugs on patients and the health care system. Dermatologists, for example, can rely on generic and therapeutic substitution; physicians in other specialties should examine their own prescribing patterns for what changes are possible and practical.

ARTICLE INFORMATION

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