

# Patient and Physician Perspectives Vary on Atopic Dermatitis

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*We compared the written responses of physicians (n=303) and patients (n=961) from a nationwide US survey concerning atopic dermatitis (AD). Physicians, primarily dermatologists, responded to 32 questions, and patients responded to 44 questions about AD and its management. Most physicians and patients were in agreement regarding disease severity, the relative lack of effectiveness of over-the-counter products, concerns about drug adverse effects, and the need for more patient support groups. However, physicians were more concerned about long-term adverse effects than were patients. Additionally, 91% of physicians versus 46% of patients rated prescription medications as "moderately" or "very" effective. Patients were generally pleased with their overall AD-related medical care: 42% were "a lot" or "very" satisfied, while only 8% were dissatisfied. Although physician and patient perceptions sometimes differed, both groups preferred treatments offering greater effectiveness, fewer adverse effects, and greater applicability to the pediatric population.*

Atopic dermatitis (AD) is becoming increasingly common—the prevalence in children aged 3 to 11 years is now 17.2%.<sup>1</sup> Onset of AD usually occurs in the first year of life<sup>2,3</sup> and improves during childhood.<sup>3,4</sup> Some cases never resolve, and the condition often persists, to varying degrees, into adulthood.<sup>3,4</sup> Many patients continue to have sensitive skin throughout their lives.

Because AD and its treatment are chronic, the perceptions of patients and physicians greatly affect the success of AD treatment. These perceptions are

an important aspect of therapeutic decision making and treatment compliance.<sup>5</sup> It is likely that new types of therapeutic agents, such as phototherapy, immunomodulators (FK506, tacrolimus), ascomycin derivatives, interferons, thymopentin, and immunotherapy, will change AD treatment paradigms. The manner in which AD treatment changes will be partly related to the views of providers and patients concerning available and future treatments.

Although the newer AD agents increase the value of assessing patient and physician perceptions regarding AD and its treatment, these views have not been systematically evaluated. In an attempt to assess these perceptions, we analyzed the results of a written, nationwide US survey completed by physicians and patients with AD to compare and contrast their perceptions about this disease and its management.

## Methods

A survey of physicians and patients was conducted by the National Eczema Association for Science and Education (NEASE) and funded by a grant from Novartis Pharmaceuticals Corporation, East Hanover, New Jersey. The physician survey consisted of 32 questions. It was mailed to 2500 clinicians randomly selected from a list provided by IMS Health (Westport, Connecticut) of 9000 US physicians (primarily dermatologists) who are prescribers of topical medications for AD. The patient survey, consisting of 44 questions, was mailed to 4000 NEASE constituents who had requested they be placed on the association's mailing list. The survey was mailed by NEASE in 1999. There was no follow-up for nonresponders. The survey was developed based on the eczema literature, with a focus on patient needs and concerns.

The physician survey was used to ascertain the demographics of patients treated for AD, as well as the physicians' assessments of the severity of disease, overall management techniques, pharmacologic treatments, and satisfaction with such treatments. The patient survey was similar and included additional questions designed to evaluate the affect of disease flares on quality of life and satisfaction with care.

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This study was supported by an unrestricted educational grant from Novartis Pharmaceuticals Corporation.

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## Results

**Physician Survey**—A total of 303 responses were returned and analyzed. The vast majority (98%) of the physicians responding to the survey were dermatologists. Demographics and practice site characteristics for responding physicians are shown in Table 1. Most physicians were handling fewer than 50 cases of AD per month and were mostly seeing patients with mild or moderate AD. The majority of physicians also were making use of educational and ancillary services for their patients.

The respondents reported that they confirmed diagnoses of AD primarily via typical morphology and distribution, personal or family history of atopy, chronic or relapsing dermatitis, and presence of pruritus. In nearly all cases (96%), physicians reported that their first-time patients had used over-the-counter (OTC) products “sometimes” or “almost always” before seeing a physician.

Physicians also were asked questions regarding the use of patient education materials for AD. The most commonly used educational materials were pamphlets and brochures, which were supplied to patients by 77% of the physicians surveyed. Most providers found the quality of the educational materials adequate; however, more than one third of physicians believed it to be inadequate. When asked what other types of educational materials they thought would be helpful to their patients, physicians most often suggested a toll-free telephone number, videos, or an AD support group.

**Treatment Practices**—Once a diagnosis was established, more than 90% of responding physicians reported treating most of their adult AD patients with topical corticosteroids. Oral formulations of

Table 1.

### Demographics and Practice Site Characteristics of Responding Physicians (n=303)

Specialty	
Dermatology	98%
Other	2%
Years in practice	
0–5	28.4%
6–10	15.8%
11–20	27.4%
≥21	28.1%
Number of patients with AD seen per month	
≤50	80%
51–99	17%
≥100	3%
Atopic dermatitis disease severity in patients	
Mild	43%
Moderate	44%
Severe	15%
Educational materials provided	
Pamphlets/brochures	77%

Table 2.

### Products\* Prescribed by More Than Half of Responding Physicians

Generic	Brand Name	% Using
Betamethasone dipropionate (augmented)	Diprolene® AF	57%
Clobetasol propionate	Temovate E®	66%
Hydrocortisone valerate	Westcort®	81%
Mometasone furoate	Elocon®	71%
Triamcinolone acetonide	Kenalog®	60%
Fluocinonide	Lidex-E®	65%

\*Some medications have multiple brand names, strengths, and formulations; the above were the brand names used in the survey.

Table 3.

### Perceptions of Physicians and Patients of Patient Preferences for Type of Topical Preparation

	Physician-Cited Patient Preference	Patient-Cited Patient Preference
Creams	56.4%	38.9%
Ointments	24.4%	32.4%
Lotions	2.3%	14.7%
None	13.5%	12.9%

these drugs were prescribed by 73% of physicians to 10% or fewer of their patients. The most commonly prescribed topical products were hydrocortisone valerate and mometasone furoate (Table 2). The majority of providers (90%) stated that they treated their pediatric patients with products different from those they used in adults.

Of the respondents, 86% said they prescribed oral antibiotics for some AD patients, while 75% used topical antibiotics in some patients. However, most of these physicians prescribed antibiotics for only a minority of patients. When asked about a preference regarding topical product formulation, about two thirds of the physicians expressed a preference for ointments, though they believed that their patients preferred creams to ointments by a greater than 2-to-1 margin (Table 3).

The perceptions of the physicians regarding the efficacy of OTC and prescription products are shown in Figure 1. Only 18% of physicians rated OTC products as “moderately” or “very” effective, while 91% rated prescription medications for AD as “moderately” or “very” effective. Of the respondents, 62% were generally satisfied with currently available AD products; nonetheless, 82% said treatment-related adverse effects were a major concern and had a strong impact on therapeutic decisions. The adverse effects of most concern to physicians were skin atrophy, striae, stunted growth, and rosacea. Furthermore, nearly half (47%) of the responding physicians believed that their patients were not satisfied with these products, and a lack of efficacy was cited as the most common reason for this perceived patient dissatisfaction (Figure 2).

**Patient Survey**—A total of 961 surveys from patients throughout the United States were returned

and analyzed. Of these, 45% were completed on behalf of a child, 54% by the person with AD, and 1% by a household member. Patient demographics are shown in Table 4. More than one third of the patients had asthma and most had concomitant allergies. Slightly over half the patients (53%) reported that they received ongoing treatment from a dermatologist, while the rest of patients were treated by pediatricians, family practitioners, or other providers. Furthermore, 31% of patients saw their clinicians once annually or less, 28% were seen twice a year, and 41% were seen more frequently.

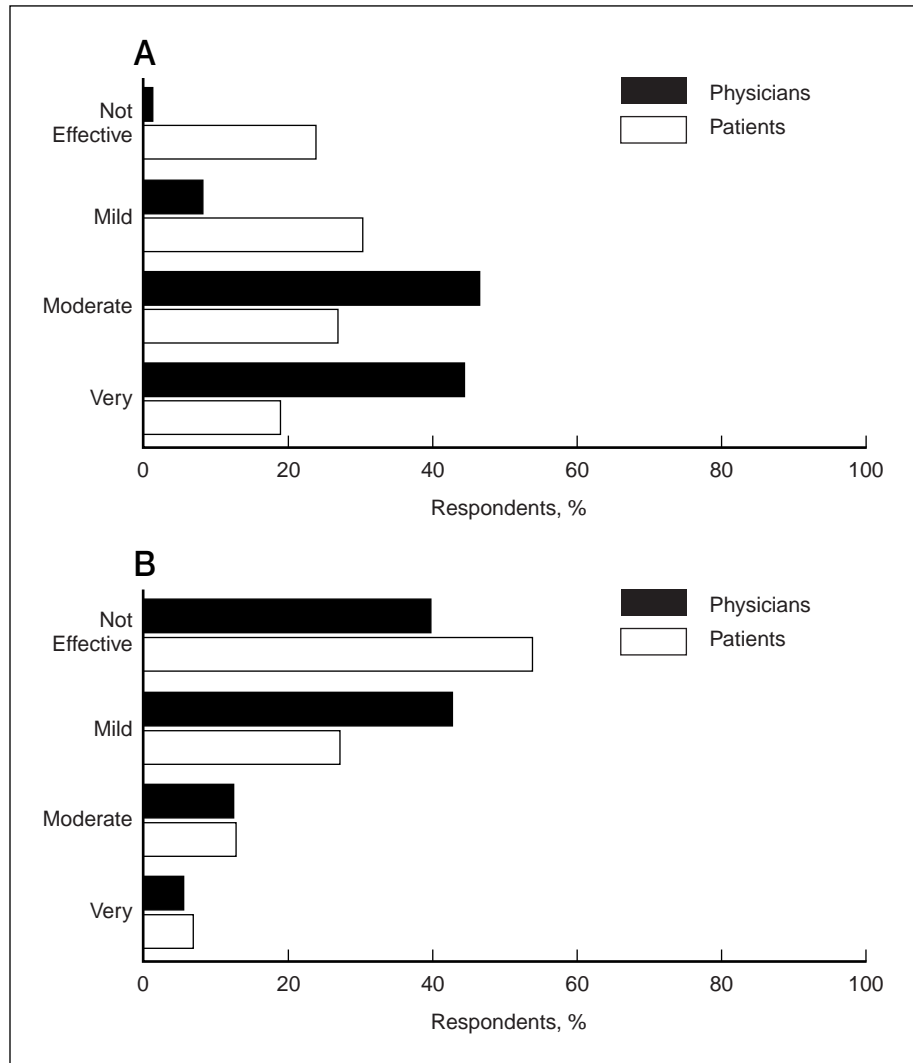
A total of 30% of patients reported that their physicians had ranked their AD as mild, 42% moderate, and 29% severe. Ninety-five percent of patients agreed with the assessment of their physician regarding disease severity.

Patients said their principal source of education and information about AD was their physician (48%) or NEASE (44%). Nearly 50% of the patients indicated they would like to have more written materials, and more than 25% believed that educational videos would be beneficial. Almost a third of patients (32%) expressed interest in AD seminars/workshops, and 59% requested a toll-free hotline for questions. Only 3% of patients reported ever having attended a support group. More than 50% said they were unaware that such groups existed, and 38% said there were no groups in their area.

**Treatments**—Patients were asked to identify from a predetermined list of hydrocortisone creams and ointments and antihistamines the OTC products they had used to treat their AD. Of the listed products, hydrocortisone creams and ointments were identified by 43% of all responding AD patients, making those OTC products the most commonly used. Caladryl<sup>®</sup> lotion was used by 31% of respondents, and another 30% used a variety of other OTC preparations. Patient preferences regarding the type of topical formulation of OTC or prescription AD products are shown in Table 3. Most patients preferred creams or ointments.

The individual prescription products listed in Table 2 were used by a range of 14% to 37% of all patient respondents, with 40% using various other prescription drugs instead of or in addition to those listed in the table. In 93% of patients, health insurance paid for a portion of their AD prescription medications. Sixty-two percent of patients paid \$20 or less in out-of-pocket expenses for each prescription, 29% paid from \$21 to \$50, and approximately 9% paid more than \$50.

The causes for patient dissatisfaction with current treatments are shown in Figure 2. Although a lack of efficacy and messiness were most commonly cited, 12% of patients reported dissatisfaction with their



**Figure 1.** Patient and physician perceptions of the effectiveness of topical corticosteroids (A) and over-the-counter (OTC) preparations (B) for atopic dermatitis.

medication due to side effects. Dryness was the most common adverse event (28%), followed by burning (27%), redness (22%), and loss of skin pigment (21%), though the survey did not address whether these effects were caused by the medications or by AD itself. In 26% of patients, adverse effects were severe enough to warrant discontinuing a medication: 19% discontinued hydrocortisone valerate, 13% discontinued mometasone furoate, and 11% discontinued betamethasone dipropionate.

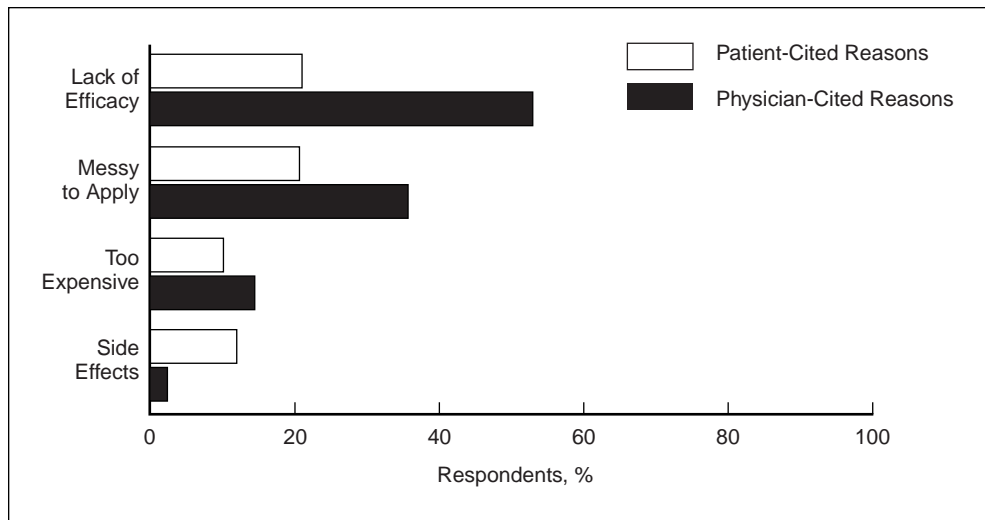
Patients gave OTC products low marks for effectiveness, with just 19% rating them as “moderately” or “very” effective. Although prescription drugs fared somewhat better, only 46% of patients considered them “moderately” or “very” effective (Figure 1). Considerably fewer patients than physicians considered these medications effective. Nearly two thirds (63%) of patients reported the

return of AD flares within a few days to 2 weeks after treatment.

Although 8% of patients were generally dissatisfied with the effectiveness of their treatments, many were happy with their overall medical care. Nearly half (49%) responded they were “somewhat” satisfied with the care provided by their physician, and 43% stated they were “a lot” or “very” satisfied.

**Comment**

Comparison of the written responses of 303 dermatologists and other physicians who treat AD with the responses of 961 patients with this disorder revealed several areas of parallel perceptions about the disease and its management. Concerning disease severity, more than 90% of patients concurred with their physician’s assessment of the seriousness of their AD. The 2 groups of respondents also agreed that OTC



**Figure 2.** Patient- and physician-cited reasons for lack of patient satisfaction with available atopic dermatitis treatments.

products were largely ineffective, that adverse effects were problematic, and that there were few AD patient support groups.

Despite these similarities in perspective, some interesting differences were observed. Although both agreed that medication adverse effects were a problem, physicians focused on long-term sequelae such as skin atrophy, stunted growth, and striae development, while patients were more concerned with short-term effects such as burning and dryness. This is further complicated because some of these adverse effects may have been caused by AD itself rather than by treatment with these medications. Although most physicians were satisfied with the amount and type of AD information resources available to patients, physicians and patients both expressed the need for more educational materials on the disease. Both groups frequently mentioned a toll-free telephone number and educational pamphlets/brochures as potential sources of patient information.

Effectiveness of prescription products was the area where physician and patient perceptions differed most significantly, with a 45% disparity observed. The majority of responding physicians (91%), as opposed to just 46% of patients, ranked the available prescription treatments for AD as “moderately” or “very” effective. Furthermore, physicians appreciably overestimated patient preference for cream formulations and were not concerned about the messiness of AD preparations—a nuisance that evoked even more patient consternation than did adverse effects.

Although patient and physician perceptions differed in some areas, these survey responses clearly show that both groups believe current therapies for AD have significant limitations. There is need for new treatment strategies that offer greater efficacy; reduced

propensity for adverse effects, particularly with long-term use; and wider applicability (ie, suitability for use in all age groups and on all areas of the body).

New therapies for the treatment of pediatric AD seek to address the problematic safety profile of current therapies by improving tolerability, treatment duration, and safety of application on the face and other sensitive areas. Therapies in development or under investigation include phototherapy, immunomodulators such as the recently approved tacrolimus,<sup>6</sup> ascomycin derivatives, interferons, thymopentin, and immunotherapy.<sup>7-10</sup> These therapies may be particularly appropriate considerations for patients in whom corticosteroids are ineffective or for whom side effects are particularly problematic.<sup>11</sup>

Finally, despite being significantly more dissatisfied with current AD treatments than were physicians, patients generally were pleased with their healthcare providers, as evidenced by the more than 90% who expressed satisfaction with their overall medical care. This may indicate that patients recognize the limitations of available treatments but are pleased with the efforts made by their physicians.

This study had several limitations. The response rates of physicians (12%) and patients (24%) were low, making the sample sizes relatively small. Because the survey questions used in this study were not validated, the reliability and validity of the measurements are not known. Although the physicians chosen to receive the survey were randomly selected from a list of 9000, they and the patients surveyed were not randomly selected from the general populace. For the sake of convenience, they were drawn from 2 pre-established groups: known prescribers of topical medications for AD (physicians) and constituents of NEASE, a disease-related organization

Table 4.

**Patient Demographics (n=961)**

Age range, y	
≤15	45%
16–50	35%
≥51	20%
Gender	
Female	63%
Male	37%
Ethnicity	
Caucasian	81%
Other	17%
Age at diagnosis, y	
0–2	61%
3–7	10%
>7	29%
Diagnosis made by	
Dermatologist	41%
Pediatrician	32%
Family doctor/ primary care physician	24%
Prevalence of concomitant disease	
Asthma	36%
Allergies	81%

(patients). Patients affiliated with NEASE may have more severe disease and greater burden of illness than is found in the larger AD population. These issues may affect the generalizability of these results to the general AD community.

The purpose of the study was to begin to assess the degree of concordance between patient and physician perceptions of AD and current AD therapies. Although the study has some limitations and bias, the findings suggest some interesting areas for further research.

### Conclusion

The management of skin diseases such as AD, which are punctuated by exacerbations and remissions, can prove frustrating for physicians and patients alike. Although the 2 groups may not always see eye-to-eye on every aspect of care, this study shows several similarities in the perceptions of patients with AD and the physicians who treat this disorder. Patients over-

whelmingly concurred with their physician's assessment of disease severity. In addition, both agreed that OTC products are only minimally effective, that drug adverse effects with prescribed corticosteroids pose a significant problem, and that more support groups for patients are needed. On the other hand, patients with AD were far less satisfied with the effectiveness of available prescription products (topical corticosteroids) than were physicians. Although there was a difference in the degree of dissatisfaction, both groups clearly view current AD therapies as having distinct limitations. Despite the shortcomings of available therapies, most patients are pleased with their overall care. New treatments that provide greater effectiveness, a decreased likelihood of adverse effects, and wider applicability are in demand.

*Acknowledgment*—The data were presented in poster form at the American Academy of Dermatology 58th Annual Meeting, March 10 to 15, 2000, in San Francisco, California.

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