

# The Primary Care Provider and the Care of Skin Disease

## The Patient's Perspective

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**Objective:** To ascertain the patient's perspective on dermatologic care provided by primary care providers (PCPs) or dermatologists.

**Design:** Cross-sectional survey of patients drawn from primary care and dermatology clinics.

**Setting:** Academic Veterans Affairs medical center.

**Patients:** Convenience sample of patients in either a primary care or a dermatology clinic.

**Intervention:** Survey questionnaire.

**Main Outcome Measures:** Patients' confidence in having their skin problems cared for by PCPs and dermatologists and satisfaction with previous care rendered.

**Results:** A total of 137 patients in the primary care clinic (group 1) and 100 patients in the dermatology clinic (group 2) participated. Patients (N=237) expressed confidence in their PCP's ability to treat rashes (62%), diagnose skin cancer (65%), perform skin biopsies (60%), "freeze" lesions with liquid nitrogen (50%), and perform cutaneous surgery (46%). Group 2 patients were

significantly less likely to have confidence in their PCP than group 1 patients for all measures other than the use of liquid nitrogen. High levels of confidence were expressed in a dermatologist's ability for all 5 measures: 92%, 91%, 92%, 83%, and 85%, respectively. Patients were more confident in dermatologists' abilities to perform these procedures compared with PCPs ( $P<.001$  for all comparisons). Of patients previously treated for skin disorders, there was a high rate of satisfaction with the treatment rendered by PCPs (81% for group 1 and 75% for group 2) and by dermatologists (92% for group 1 and 90% for group 2). However, patient satisfaction was higher for dermatology vs primary care for the treatment of skin disease ( $P<.001$ ). Direct access to dermatologists was preferred.

**Conclusions:** Although patients have confidence in their PCP to care for their skin disease, they have greater confidence in the care provided by dermatologists. Among patients previously treated for skin disease, satisfaction was higher with care rendered by dermatologists vs PCPs. Most patients prefer direct access to dermatologists should they develop a skin problem.

*Arch Dermatol.* 2001;137:25-29

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PATIENTS WITH skin disorders are extremely common. Approximately 6% of visits to all physicians entail a problem of the skin, hair, or nails; however, only approximately 40% of these patients are seen by dermatologists.<sup>1</sup> In primary care settings, the proportion of patient visits involving dermatologic complaints is even higher, where up to one fourth of visits involve skin disorders.<sup>2</sup> As many health care systems have adopted a "gatekeeper" system, whereby a patient must first see his or her primary care provider (PCP), who then determines whether the patient is in need of specialty care, information is clearly needed regarding the quality of dermatologic care delivered by PCPs.

Several studies<sup>3-6</sup> have evaluated how PCPs compare with specialists in the diagnosis and/or treatment of disease. Although PCP care may be comparable to that of specialists for certain disorders (eg, hypertension and type 2 diabetes mellitus), such is not the case for skin disease. Researchers<sup>7-14</sup> have demonstrated that dermatologists provide greater accuracy in diagnosis and more appropriate treatment of skin disorders compared with PCPs.

Another important aspect of quality of care is patient satisfaction, since ultimately, patients are the purchasers of health care resources. Little is known, however, about patients' preferences for the evaluation and treatment of skin disorders. One previous study<sup>15</sup> conducted in a dermatology practice suggested that pa-

## PATIENTS AND METHODS

### STUDY SITE AND POPULATION

The West Haven Veterans Affairs Medical Center, West Haven, Conn, provides care for more than 29 000 veterans who are older (average age, 61 years) and predominantly male (91%). Patients are enrolled in primary care, and referral to subspecialty clinics must be made by patients' PCPs. Primary care clinics are staffed by internal medicine attending physicians, nurse practitioners, physician assistants, and internal medicine residents (who work under the supervision of the attending physicians). Dermatology clinics are staffed by dermatology attending physicians and dermatology residents, who work under their supervision. The attending physicians and residents in the dermatology and primary care clinics are affiliated with the Yale University School of Medicine, New Haven, Conn.

### STUDY SAMPLE

Eligible patients were those veterans in the waiting rooms of the primary care and dermatology clinics awaiting scheduled appointments. Subjects were recruited on 14 clinic days during a 2-month period. A trained research assistant administered the study questionnaires to a convenience sample of patients before their primary care or dermatology clinic appointment.

### SURVEY PROCEDURE AND QUESTIONNAIRE

All participants were asked to rate their level of confidence in their PCP's ability to: (1) care for any rashes or

skin conditions that might develop, (2) diagnose skin cancer, (3) perform skin biopsies, (4) "freeze" skin lesions with liquid nitrogen, and (5) perform cutaneous surgery. Study subjects were asked identical questions regarding their confidence in a dermatologist, and they were asked if they had ever been treated by dermatologists and/or PCPs for skin conditions and about their satisfaction with the treatment.

Possible responses to questions regarding patient confidence were "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree." For analysis, the responses "strongly agree" and "agree" were combined, while the 3 remaining categories were also combined into an "all others" category. Subjects who had received previous treatment for a skin problem were asked to rate how satisfied they were with previous care. The responses "very satisfied" and "somewhat satisfied" were combined, while the 3 remaining responses ("neither satisfied nor dissatisfied," "somewhat dissatisfied," and "very dissatisfied") were combined.

Subjects were also asked where they preferred to have their skin problems cared for and should they develop a skin problem, whether they preferred to have direct access to dermatologists without having to be seen by their PCP.

Demographic information, including participants' age, sex, level of education, and self-reported health status, was obtained at the interview.

To assess for potential differences between the groups, we used a  $\chi^2$  or Fisher exact test for categorical variables and *t* tests for dimensional variables. *P* < .05 (2-tailed) was considered significant.

The study protocol was approved by the local investigational review board.

tients were more satisfied with dermatologist care for their skin disease compared with PCP care, and that direct access to dermatologists was important. However since the study participants were enrolled in a dermatologist's office, a referral bias in favor of dermatologic care could have been introduced, as the study sample likely included individuals who were "PCP failures." In contrast, patients successfully treated by their PCPs for a given skin disorder—and who may have a more favorable opinion of the care provided by PCPs—would have a lower probability of being referred for specialty evaluation. To test this hypothesis, we surveyed patients in dermatology and primary care clinics and determined their confidence in PCPs' and dermatologists' abilities to diagnose and treat skin disease.

## RESULTS

### PATIENTS

A total of 311 patients were asked to participate: 177 in the primary care clinic and 134 in the dermatology clinic. Of these, 237 patients completed the questionnaire, for an overall participation rate of 76%. Rates of participation did not vary by clinic site: 133 (75%) of the 177 general medicine clinic patients (group 1) agreed to partici-

pate, compared with 100 (75%) of the 134 dermatology clinic patients (group 2). Subjects' average age was 65.7 years (65.8 years for group 1 vs 65.6 years for group 2), and 95% were male (group 1 vs group 2, 94% vs 96%). There was no difference between the groups for educational level or perception of self-rated health status (data not shown).

### PATIENT CONFIDENCE IN CARE BY A PCP

Subjects (N = 237) reported confidence in their PCP's ability to take care of any rashes or skin conditions that develop, to diagnose skin cancer, to perform skin biopsies, to freeze skin lesions with liquid nitrogen, and to perform surgery on their skin. When the responses of groups 1 and 2 were compared (**Table 1**), group 2 subjects were less likely than group 1 participants to be confident in their PCP's ability to take care of any skin condition that might develop, to diagnose skin cancer, to perform skin biopsies, and to perform cutaneous surgery.

### PATIENT CONFIDENCE IN CARE BY A DERMATOLOGIST

Patients reported confidence in a dermatologist's ability to take care of any skin conditions that might develop,

**Table 1. Patient Confidence in a Primary Care Provider\***

I Am Confident in My Primary Care Provider's Ability	All Patients (N = 237)	Group		P (Group 1 vs Group 2)
		1 (n = 137)	2 (n = 100)	
To take care of any rashes or skin conditions that develop				
Agree or strongly agree	148 (62)	102 (74)	46 (46)	<.001
All others†	89 (38)	35 (26)	54 (54)	
To diagnose skin cancer				
Agree or strongly agree	153 (65)	100 (73)	53 (53)	.002
All others†	84 (35)	37 (27)	47 (47)	
To perform skin biopsies				
Agree or strongly agree	143 (60)	91 (66)	52 (52)	.02
All others†	94 (40)	46 (34)	48 (48)	
To "freeze" skin lesions with liquid nitrogen				
Agree or strongly agree	118 (50)	74 (54)	44 (44)	.17
All others†	119 (50)	63 (46)	56 (56)	
To perform surgery on my skin				
Agree or strongly agree	110 (46)	72 (53)	38 (38)	.03
All others†	127 (54)	65 (47)	62 (62)	

\*Data are given as the number (percentage) of patients unless otherwise indicated. Group 1 includes patients questioned in the primary care clinic; and group 2, patients questioned in the dermatology clinic.

†Includes the following categories: neither agree nor disagree, disagree, and strongly disagree.

to diagnose skin cancer, to perform skin biopsies, to freeze lesions with liquid nitrogen, and to perform cutaneous surgery. No statistical difference was detected between groups 1 and 2 for any of these outcomes (**Table 2**). Subjects were significantly more confident in a dermatologist's ability to perform these procedures or measures than a PCP's ability ( $P < .001$  for each comparison).

#### PREVIOUS TREATMENT BY PCPs AND DERMATOLOGISTS FOR SKIN CONDITIONS

Thirty-five percent of group 1 (47/135) and 40% of group 2 (40/100) participants reported having been treated by their PCP for a skin condition ( $P = .41$ ). Among this subgroup, 68 (78%) reported satisfaction with the previous treatment of their skin problem by their PCP. There was no significant difference in satisfaction with care by their PCP between the 2 groups (81% for group 1 and 75% for group 2;  $P = .50$ ). In addition, among group 1 subjects, there was no difference in satisfaction with the care rendered by their PCP, whether they were also enrolled in a dermatology clinic ( $P = .33$ ).

A total of 90 group 1 and 78 group 2 participants had previously been treated by dermatologists for skin conditions. There was no difference in reported satisfaction between groups for the care rendered by dermatologists (92% vs 90%;  $P = .80$ ). Patient satisfaction with dermatologist care was higher than that rendered by PCPs ( $P < .001$ ).

#### PATIENT PREFERENCES

Subjects were asked whom they would prefer to take care of their skin problems (**Table 3**). Of the 234 respondents, 181 preferred dermatologists, 29 preferred their PCP, 6 preferred other physicians, and 18 had no preference. Of the 134 group 1 respondents, 26 preferred PCP

care for their skin problems, while only 3 of the 100 group 2 participants preferred PCP care. Similarly, 91 group 1 patients preferred that a dermatologist care for their skin problems, while 90 group 2 patients preferred a dermatologist.

Ninety-one (66%) of the 137 group 1 patients vs 79 (79%) of the 100 group 2 patients agreed with the statement that they would prefer to see a dermatologist directly without having to see their PCP should they develop a skin problem ( $P < .001$ ).

#### ROLES OF VARIOUS PCP TYPES

We looked to see if the type of PCP influenced patient satisfaction. Of the patients who had known PCPs, 151 were cared for by attending physicians in general internal medicine, 23 by internal medicine house staff, and 52 by nurse practitioners or physician assistants. For all measures other than confidence in PCP's ability to perform a biopsy ( $P = .03$ ), no significant differences were detected between attending physicians and other providers (house staff, nurse practitioners, and physician assistants).

#### COMMENT

The results of our survey further contribute to the growing literature regarding the quality of care for patients with skin disorders. Previous studies have demonstrated that dermatologists were superior to PCPs for the diagnosis and treatment of common dermatoses,<sup>7-12</sup> the ability to recognize lesions suggestive of malignant neoplasms,<sup>13,16</sup> and the appropriate use of topical antifungal therapy.<sup>17</sup>

We found that although patients were more likely to have confidence in a dermatologist than their PCP for the care of skin disorders, they were still confident in the abilities of their PCP. This was true not only for diagnosis and treatment but for the performance of more inva-

**Table 2. Patient Confidence in a Dermatologist\***

I Am Confident in a Dermatologist's Ability	All Patients (N = 237)	Group		P (Group 1 vs Group 2)
		1 (n = 137)	2 (n = 100)	
To take care of any rashes or skin conditions that develop				
Agree or strongly agree	217 (92)	127 (93)	90 (90)	.34
All others†	20 (8)	10 (7)	10 (10)	
To diagnose skin cancer				
Agree or strongly agree	215 (91)	125 (91)	90 (90)	.61
All others†	22 (9)	12 (9)	10 (10)	
To perform skin biopsies				
Agree or strongly agree	217 (92)	125 (91)	92 (92)	.98
All others†	20 (8)	12 (9)	8 (8)	
To "freeze" skin lesions with liquid nitrogen				
Agree or strongly agree	196 (83)	114 (83)	82 (82)	.71
All others†	41 (17)	23 (17)	18 (18)	
To perform surgery on my skin				
Agree or strongly agree	200 (84)	113 (82)	87 (87)	.31
All others†	37 (16)	24 (18)	13 (13)	

\*Data are given as the number (percentage) of patients unless otherwise indicated. Group 1 includes patients questioned in the primary care clinic; and group 2, patients questioned in the dermatology clinic.

†Includes the following categories: neither agree nor disagree, disagree, and strongly disagree.

**Table 3. Preferences for Care of Skin Disease\***

Preference	All Patients (N = 234)	Group		P (Group 1 vs Group 2)
		1 (n = 134)†	2 (n = 100)	
Primary care provider	29 (12)	26 (19)	3 (3)	<.001
Dermatologist	181 (77)	91 (68)	90 (90)	<.001
No preference	18 (8)	15 (11)	3 (3)	.04
Other	6 (3)	2 (1)	4 (4)	.43

\*Data are given as the number (percentage) of patients unless otherwise indicated. Group 1 includes patients questioned in the primary care clinic; and group 2, patients questioned in the dermatology clinic.

†Three patients did not complete this question.

sive procedures, such as skin biopsy, the application of liquid nitrogen, and cutaneous surgery. This finding has important quality-of-care ramifications, since PCPs are being trained in these techniques.<sup>18</sup> Despite evidence suggesting that the care of skin disease may be better served by dermatologists,<sup>7-17</sup> patients may not be entirely averse to having their PCP assume a greater role in the delivery of this care.

We also found that among those who had been treated previously for a skin disorder by their PCP, there was a high satisfaction rate, although this was significantly less than the satisfaction rate of subjects treated by dermatologists (78% vs 90%). In addition, no significant difference in satisfaction was detected whether they were questioned in the dermatology or primary care clinic. For previous treatment, we therefore could not confirm the potential bias introduced in the study of Owen et al,<sup>15</sup> the first to look at patient opinion with respect to who cares for their skin disease. However, we found that primary care patients were more likely to express confidence in their PCP and prefer PCP treatment of their skin problems than those questioned in the dermatology clinic.

Owen et al<sup>15</sup> reported that 64% of patients in their study who had been treated by a PCP for a skin condition were satisfied with the care rendered, which is comparable to, but slightly lower than, the 78% we found. Possible explanations for the lower PCP satisfaction rate found in their study include the finding that 11% of participants had previously seen 2 or 3 physicians for their condition, which raises the possibility that their patients had either higher expectations or more severe illness than we encountered. Furthermore, the skills of the university-affiliated physicians in our study might be different from those of the PCPs in the study of Owen et al. Interestingly, while the physicians in our study were all trained in internal medicine, there was a high percentage of family physicians and general practitioners among the PCP group in their study. Previous research<sup>19</sup> has suggested that family physicians and general practitioners are superior to internists when tested on diagnostic abilities with respect to skin disease.

How can we reconcile the findings of previous studies that suggest that PCPs are inferior to dermatologists in the diagnosis and treatment of skin disorders with the high rate of satisfaction and confidence in PCP care found in our study? It is possible that since most skin conditions are not life threatening and often are self-limiting, they may spontaneously improve regardless of the therapy rendered. Alternatively, patients may harbor positive feelings, in general, toward their PCP, who is involved in such broadly encompassing medical endeavors as chronic disease management, disease prevention, cancer screening, patient education, and overall coordination of care, and with whom patients have developed a longitudinal relation.

Our study has several possible limitations. Because our study population consisted largely of older, male veterans, our results may not be generalizable to other health care systems. In addition, patient satisfaction with dermatology care may be different in other systems due to the reliance of dermatology residents in training at our



facility. However, in our study, with the exception of only one measure, the performance of skin biopsies, patient confidence in their PCP was no different whether the PCP was an attending physician. Whether these findings could be replicated in traditional managed care organizations should be the subject of future investigation.

Patient satisfaction is clearly an important measure of quality of care. Despite patient confidence in and satisfaction with PCP care of skin problems, patients reported a higher degree of confidence in and satisfaction with dermatologists. Furthermore, most patients prefer having direct access to a dermatologist for the care of their skin disease. The greater patient satisfaction engendered by direct access may provide dividends to managed care systems by making them more attractive to health care consumers.

Future studies should also evaluate whether the outcomes of care, financial and clinical, rendered by PCPs and dermatologists differ, which would further help shape health care policy. Until these studies are completed, managed care organizations should consider incorporating patient preferences and expectations into policy as logistical constraints permit.

*Accepted for publication September 12, 2000.*

*This study was supported by Career Development Awards from the Department of Veterans Affairs Health Services Research and Development Service, Washington, DC, and the Robert Wood Johnson Foundation, Princeton, NJ (Dr Reid); a grant from Bristol-Myers Squibb, Wallingford, Conn (Dr Feldman); and the Dermatology Foundation's Clinical Career Development Award in Health Care Policy (Dr Kirsner).*

*We thank Sue Kancir, RN, for her assistance with data analysis and Joanne Hart for her assistance with manuscript preparation.*

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## Correction

**Author Name Omitted.** David J. Leffell, MD, of New Haven, Conn, is the second author, and should have been listed as such, of the Vignette "Intralesional Interferon Alfa for Treatment of Recurrent Lentigo Maligna of the Eyelid in a Patient With Primary Acquired Melanosis" (2000;136:1415-1416) in the November issue of the ARCHIVES. We regret that Dr Leffell's name was omitted from the signature block for this letter.