Management of Chronic Noncancer Pain by VA Primary Care Providers: When Is Pain Control a Priority?

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Objective: To examine how primary care providers (PCPs) prioritize management of chronic pain in patients with multiple chronic conditions and to determine PCP perspectives on chronic pain management and pain treatment resources.

Study Design: Survey mailed to a random sample of 500 Department of Veterans Affairs (VA) PCPs at VA medical centers and community-based outpatient clinics.

Methods: After reading a vignette describing a patient with multiple chronic conditions and chronic pain, PCPs were asked to identify the 3 most important issues to address during the visit. The survey also asked about the availability of services, and level of confidence and satisfaction with chronic pain management.

Results: A total of 279 eligible PCPs (57%) responded to the survey, 77% of whom identified pain control among the top 3 treatment priorities. PCPs who did not choose pain control were more likely to indicate that chronic pain patients should see a specialist (54% vs 35%, $P = .006$) and were less confident about using opioid analgesics (52% vs 72%, $P = .002$). Of the respondents, 86% reported psychology or mental health clinics were available at their clinic site; 71%, physical therapy; and 20%, multidisciplinary pain clinics. Most PCPs (74%) were satisfied with the quality of care they provide for patients with chronic pain but only 30% were satisfied with access to pain specialty services.

Conclusion: Additional training opportunities for PCPs and more effective use of ancillary services may be needed for further improvements in care for chronic pain patients.

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For author information and disclosures, see end of text.

The prevalence of chronic noncancer pain is high in primary care populations and causes significant morbidity.[1-4] Pain interferes with activities of daily living and work and family life, and is associated with psychological distress.[2,5-7] In addition, chronic pain results in increased health service utilization and costs.[8,9] Studies suggest there is substantial variability in the way physicians treat chronic pain[10,11] and that primary care providers (PCPs) often are not comfortable managing patients with this condition.[12,13] Moreover, patients frequently have multiple conditions that compete for the attention and time of providers, and may increase the complexity associated with managing chronic pain.[1] Consider, for example, Mr Smith, a 65-year-old man with diabetes, hypertension, and congestive heart failure, presenting to his PCP for a follow-up visit. Mr Smith also has chronic low back pain from an old injury. Over the past 6 months his back pain has worsened, but an extensive workup did not reveal any new pathology. His body mass index is greater than 30 and his blood pressure, low-density lipoprotein, and glycosylated hemoglobin (A1C) values all are stable but moderately elevated.

In the midst of multiple conditions and concerns, will pain be a priority that the PCP chooses to address at this visit, or will it be overshadowed by concern about better blood pressure or glycemic control? How will the PCP establish his or her priorities? Clearly, it is difficult to prioritize and address all of the concerns for a patient with multiple chronic conditions in the midst of limited time and resources.

Although several studies have examined PCP perspectives regarding chronic noncancer pain,[10-12,14] we know little about how chronic pain fits within the context of treating patients with multiple or complex chronic conditions. The Department of Veterans Affairs (VA) healthcare system is an optimal setting to address this issue, given the high prevalence among its patients of both chronic pain[6,15] and other chronic conditions.[16,17] We surveyed PCPs practicing in the VA to assess the extent to which pain control is identified as a management priority in a patient with multiple chronic conditions such as Mr Smith, and to elucidate PCPs' perspectives on chronic pain management and the resources available to facilitate pain management. Specifically, we examined (1) what PCP characteristics are associated with providers' identifying pain control as a management priority during a complex clinic visit; (2) what resources are

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available to PCPs to help them manage chronic pain; and (3) VA PCP satisfaction with their ability to care for patients with chronic pain.

METHODS

Sample Selection

In 2005, we conducted a written survey of 500 VA primary care clinicians. The study was approved by the VA Ann Arbor Healthcare System Institutional Review Board. A list of all primary care clinicians including physicians, nurse practitioners, and physician assistants who worked at least 1 day a week in primary care and had a panel size of ≥200 patients was obtained using data extracted from a VA national database. Five hundred clinicians providing care to veteran patients at VA medical centers or community-based outpatient clinics (CBOCs) were randomly selected to receive the survey. House officers were not included.

Survey Development and Administration

The survey was developed by the investigators and included the clinical vignette in Table 1, as well as questions about resources, satisfaction, attitudes, and confidence in treating chronic pain. Survey items related to provider attitudes and confidence were adapted from published studies, including work by Green et al and others,[11,12,14,18,19] and other generally available pain surveys (see, eg, www.cityofhope.org/prc/html/medka.htm). To establish face validity, the questionnaire was pretested by several general medicine physicians and questions that were unclear were refined based on their feedback.

Each randomly selected clinician was mailed a cover letter, informational brochure, and a copy of the survey. Both the study survey and informational brochure were titled "Real World Clinical Strategies for Patients with Chronic Conditions." In the brochure the project was described as focusing broadly on treating patients with multiple chronic conditions, including diabetes, heart failure, and chronic pain. To encourage participation, a $10 gift card was included with the initial survey. Following a modified Dillman technique,[20] all clinicians received a reminder letter approximately 1 week after the mailing and those who did not respond initially received a second survey 2 weeks after the reminder letter. The return envelopes were marked to allow us to track which clinicians responded to the initial mailing, but the surveys were unmarked so once the survey was removed from the envelope all responses were anonymous.

Table 1. Summary of Clinical Vignette Used in the Survey

A 65-year-old man with uncomplicated diabetes also has hypertension and congestive heart failure, and is a smoker. In addition, Mr Smith has chronic low back pain from an injury 10 years ago that has been evaluated and determined to be inoperable. Over the past 6 months, his back pain has worsened, but an extensive workup did not reveal any new pathology. His current medications include maximum doses of glipizide and lisinopril, Lasix, simvastatin, ibuprofen 800 mg 3 times daily for the pain, and daily aspirin. His dose of ibuprofen was recently increased with little improvement. He states he can no longer walk his 1.5-mile exercise circuit because of pain. He currently has no other complaints. Today, his laboratory results reveal the following: glycosylated hemoglobin 8.0%, creatinine 1.1 mg/dL, and fasting low-density lipoprotein cholesterol 150 mg/dL. On physical exam, his blood pressure is 148/92 mm Hg, heart rate is 68, weight is 218 pounds, body mass index is 31, and on a scale of 1 to 10, his pain level is 6. There is trace pedal edema.

Measurements

The primary outcome for our analysis was whether pain control was among the top 3 priorities to be addressed during a complex patient visit. Specifically, we asked providers to read a clinical vignette describing a patient presenting with multiple chronic conditions and a complaint of chronic pain (Table 1). Then, the PCP was asked to select from a list the most important, second most important, and third most important issue to address at the visit. The list included blood pressure control, glycemic control, cholesterol control, pain control, volume status, smoking cessation, weight loss, screening tests, exercise, and an option allowing the clinician to write in other issues.

Information to characterize respondents' perspectives about chronic pain management also was collected as part of the study survey, including scope of practice, opinions about pain management, and confidence with using opioids to treat chronic pain. The extent to which providers felt that they were operating outside their scope of practice when treating patients with chronic noncancer pain was assessed using a single question: "In the past year, how often were you expected to manage or treat chronic pain conditions that you felt were beyond your scope of practice or training and experience?" Providers who responded sometimes, often, and very often were categorized as practicing beyond their scope of practice. Opinions about pain management were assessed by asking respondents to indicate their level

of agreement with several statements about pain management on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). These statements included "Most patients with chronic noncancer pain should be treated by a provider who specializes in pain management" and "I did not receive adequate training in chronic pain management principles." Respondents who rated the item a 4 or a 5 (vs 1, 2, or 3) were categorized as agreeing with the statement. Finally, we measured confidence in using opioids to treat chronic noncancer pain by asking respondents to rate their level of confidence on a 5-point scale ranging from 1 (not at all confident) to 5 (extremely confident). We dichotomized confidence so that respondents who rated their confidence as a 4 or 5 (vs 1, 2, or 3) were categorized as confident.

Also of interest was the availability of services for managing chronic pain and the extent to which PCPs were satisfied with their ability to care for patients with chronic pain. Respondents were provided with a list and asked to indicate which pain-related services (eg, physical therapy, specialty pain clinics) were available at their clinic site. Respondents also were asked to think about their ability to care for their patients with chronic noncancer pain and rate their level of satisfaction on a 5-point scale ranging from 1 (mostly dissatisfied) to 5 (mostly satisfied). Specifically, we asked them how satisfied they were with the length of appointments, quality of care, ease of obtaining specialty referrals, and the accessibility of medications for treating chronic pain. For each of the satisfaction items, respondents who rated the item a 3, 4, or 5 (vs 1 or 2) were categorized as being somewhat or mostly satisfied.

Lastly, we collected information to characterize the respondent sample, including age, provider type, sex, years in practice, number of patients seen per half day, average amount of time allotted for return visits, and practice site (VA medical center or CBOC).

Data Analysis

We calculated means and standard deviations for continuous variables and frequency distributions for categorical variables to summarize responses to questions on the survey. Chi-square tests and *t* tests were used to compare the association between prioritization of pain control, provider demographic characteristics, and PCPs' perceptions about managing chronic noncancer pain. To assess service availability, in addition to presenting results for the sample overall, we also stratified responses by the respondents practice' location (VA medical center vs CBOC). CBOCs were created to expand access to primary care services, so we expected the availability of on-site specialty services to be more limited at these clinic locations. Analyses were conducted using SAS software, version 9.0 (Cary, NC) and Stata statistical software, release 10.0 (College Station, Tex).

RESULTS

Respondent Characteristics

A total of 279 eligible PCPs responded to the survey, for a response rate of 57%. The characteristics of those who responded and their answers to selected questions are summarized in **Table 2**. Of the responding PCPs, 47% were men and 66% were physicians, with a mean age of 50 years. The majority of providers (61%) worked in VA medical centers and the remainder in CBOCs. Overall, 74% reported that they had been expected to manage chronic pain conditions that they felt were beyond their scope of practice, training, or experience at least some of the time, and approximately one third did not feel confident about using opioid analgesics to treat chronic noncancer pain.

Treatment Priorities

When asked to identify the most important issues to address at the visit as described in the clinical vignette (Table 1), 44% of respondents identified pain control as the most important issue. Overall, 77% (214/279) of respondents identified pain control among the top 3 most important issues to address at the visit. In comparison, 72% identified blood pressure control and 69% identified glycemic control among the top 3 most important issues. Other issues identified as top priorities were cholesterol control (39%) and weight loss (20%), while fewer than 5% chose to focus on smoking cessation, screening tests, or exercise.

There were no differences in age, sex, years of practice, practice location, or workload between providers who rated pain control among the 3 most important issues to address and those who did not (Table 2). However, about half of the providers who did not identify pain control as a priority believed that patients with chronic noncancer pain should be treated by a provider specializing in pain management, compared with 35% of those who listed pain control as a priority ($P = .006$). Likewise, compared with those who identified pain control as a priority, PCPs who did not were more likely to report they had been expected to manage chronic pain beyond their scope of practice (85% vs 71%; $P = .03$) and reported less confidence in using opioid analgesics to treat pain (52% vs 72%; $P = .002$).

Available Services and Satisfaction

The availability of services to treat chronic pain varied considerably (**Figure**). Overall, 50% of providers reported

Table 2. Provider Characteristics

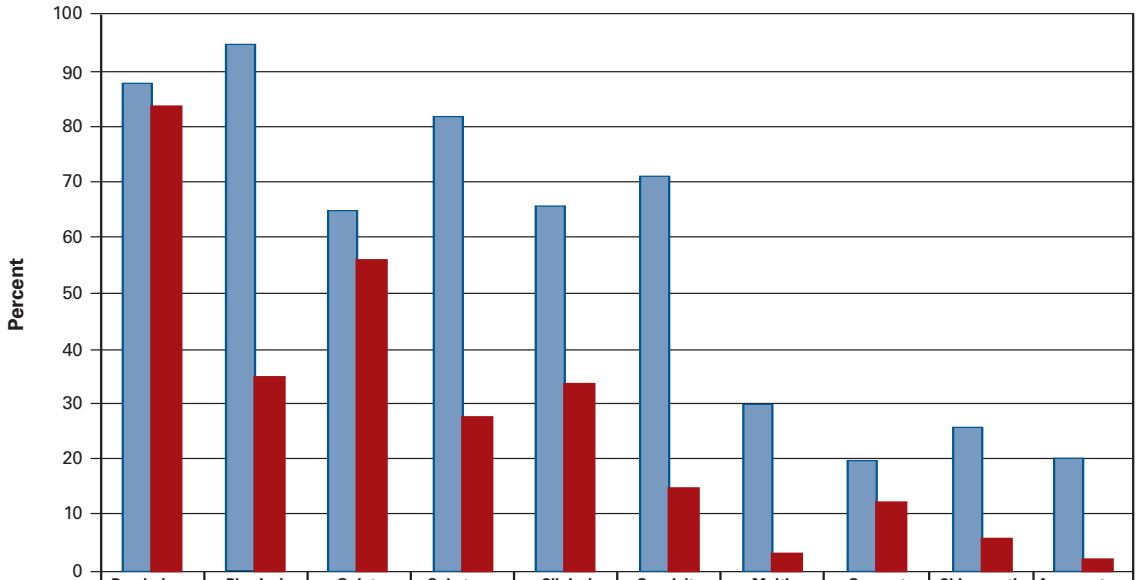
Characteristic	Percentage (No.) or Mean ± SD			
	Overall Sample (n = 279)	Providers Who Rated Pain Control Among Top 3 Issues (n = 214)	Providers Who Did Not Rate Pain Control Among Top 3 Issues (n = 65)	*P**
Age, y	50.4 ± 9.7	50.5 ± 10.2	50.4 ± 9.5	.95
Provider type				.01
Internal medicine physician	54 (151/278)	56 (119/213)	49 (32/65)	
Family medicine physician	12 (32/278)	8 (18/213)	21 (14/65)	
Physician assistant	6 (16/278)	5 (10/213)	9 (6/65)	
Nurse practitioner	27 (76/278)	30 (64/213)	18 (12/65)	
Other	1 (3/278)	1 (2/213)	2 (1/65)	
Male	47	45	52	.32
Average number of years in practice	15.6 ± 9.7	15.4 ± 9.6	16.1 ± 10.4	.62
Average number of patients seen per half day	7.7 ± 2.2	7.6 ± 2.1	8.0 ± 2.3	.16
Average number of minutes for patient return visits	26.3 ± 5.5	26.6 ± 5.6	25.4 ± 5.3	.13
Work in community-based outpatient clinic	39 (108/277)	40 (85/213)	36 (23/64)	.57
Reported inadequate training in pain management	36 (101/276)	34 (71/211)	46 (30/65)	.07
Believed patients with chronic noncancer pain should see a pain specialist	39 (109/277)	35 (74/212)	54 (35/65)	.006
Expected to manage chronic noncancer pain beyond scope of practice or training	74 (206/278)	71 (151/213)	85 (55/65)	.03
Confident in using opioid analgesics to treat pain	68 (187/277)	72 (154/213)	52 (33/64)	.002

*Comparing providers who rated pain as a priority with providers who did not.
Numbers vary slightly due to nonresponse to items.

that specialty pain clinics for interventional or medication management were available at their clinic site. However, as expected, there was a substantial difference by practice location, with 71% of providers at VA medical centers reporting the availability of specialty pain clinics compared with 15% at CBOCs. Multidisciplinary pain clinics were reported available by 30% of providers at VA medical centers and 3% of those at CBOCs. Regardless of practice location, more than 80% of respondents reported that psychology or mental health clinics were available at their clinic site. Physical therapy was reported available by more than 90% of providers at VA medical centers and by more than one third of providers at CBOCs.

The majority of providers were at least somewhat satisfied with the quality of the care they were able to provide to patients with chronic pain (74%), medications for pain on the VA formulary (78%), and their facilities' program to get Schedule II opioid medications to patients who took them routinely (80%) (Table 3). The issues with the lowest degree of satisfaction were ease of obtaining specialty consultations (30%) and the availability of other staff to follow up and adjust pain medications (35%). There were no differences in satisfac-

Figure. Percentage of Providers Who Reported Service Was Available at Their Clinic Site by Practice Location*



	Psychology or Mental Health Clinic	Physical Therapy	Opiate Mail Out Program	Substance Abuse Clinic	Clinical Pharmacist	Specialty Pain Clinic	Multi-disciplinary Pain Clinic	Support Staff for Patient	Chiropractic Services	Acupuncture
VA Medical Center (n = 169)	88	95	65	82	66	71	30	20	25	20
CBOC (n = 107)	84	35	56	28	34	15	3	12	6	2

*The practice location was missing for 2 respondents, and 1 respondent did not complete the service section of the survey.
CBOC indicates community-based outpatient clinic

Table 3. Provider's Satisfaction With Ability to Care for Patients Who Have Chronic Pain (n = 279)

Care Issue	Somewhat or Mostly Satisfied, %
Getting Schedule II opioid medications to patients who take opioids routinely	80
Medications available on formulary for treating chronic pain	78
Quality of care they are able to provide for chronic pain	74
Length of time available during office visit to meet with patients with chronic pain	60
Availability of other staff to follow up and adjust pain medications	35
Ease of obtaining pain specialty consultation	30

tion ratings between providers at CBOCs and those at VA medical centers.

DISCUSSION

When VA primary care providers were asked to identify the top issues to be addressed with a patient who had chronic noncancer pain and multiple other chronic conditions, and whose only complaint at the visit was not being able to exercise because of pain, 77% identified pain control among the top 3 issues they would address at the visit. In fact, pain control was the most frequently identified issue, although blood pressure and glycemic control also were recognized as important issues by a majority of providers. Compared with PCPs who listed pain control as one of their top 3 priorities, those who did not were more likely to indicate that patients with chronic pain should be managed by a pain specialist, were more likely to report that they had been expected to manage

or treat chronic pain conditions that they felt were outside their scope of practice, and were less confident about using opioids to treat chronic pain.

In the clinical vignette, the patient had multiple issues (eg, elevated blood pressure, glucose, and cholesterol levels) that could be addressed through medication adjustment or other interventions. However, his primary complaint was not being able to walk his normal 1.5-mile circuit because of pain. Given this scenario, using medications to improve glycemic and blood pressure control may be a reasonable management strategy, although it also is possible that improving his pain control and allowing him to continue his exercise would in turn help with his blood pressure, glycemic, and cholesterol control.[21-23] These results highlight the difficult decisions facing PCPs caring for patients with multiple morbidities, which is a growing challenge both inside and outside the VA healthcare system.[17,24] Providers are given little guidance in choosing which clinical issues to address first (ie, based on impact on mortality or morbidity),[25] let alone in choosing between clinical issues that may affect downstream morbidity (eg, elevated blood pressure) and patients' symptomatic complaints (eg, chronic pain).[26] Further, providers may feel less confident that they can manage pain effectively and may choose instead to focus on issues over which they feel they have more control, such as hypertension. Also of concern is the potential pressure associated with the growing number of performance-based payment initiatives that could result in increased attention to certain activities (eg, cholesterol measurement) and less time to deal with other matters (eg, pain).[27] Considering the number of patients with chronic pain and other chronic conditions within the VA system and in the general population, developing effective methods to help clinicians prioritize treatment options for medically complex patients is an important area for further research.

In this study, approximately one third of providers reported that they did not get adequate training in pain management and one third reported not feeling confident about using opioids to treat chronic noncancer pain. Three quarters of the providers also reported that they had been expected to manage chronic pain conditions beyond their scope of practice, training, or experience at least some of the time. Green et al found that 30% of Michigan physicians reported receiving no formal education in pain management,[12] but whether providers outside the VA are more or less confident than their VA counterparts about using opioids or feel they are expected to manage pain conditions beyond their scope of practice is not known and a topic for future research. Nonetheless, these results suggest that expanding PCP training opportunities that focus on managing chronic pain and incorporating team-based care for managing chronic pain in patients with multiple chronic conditions also may assist providers in caring for these complicated patients.

Our results show considerable variability of and varying degrees of satisfaction with the types of services VA PCPs report having available at their clinic sites to assist them and their patients with managing chronic pain. Some of this variability is associated with practice location. Specifically, respondents practicing at CBOCs (as expected) were less likely to report the availability of certain services such as specialty pain clinics and clinical pharmacists. However, the lack of on-site availability does not mean that these services are not available to patients receiving care at CBOCs because the services could be available by referral to a VA medical center. In addition, providers at CBOCs and VA medical centers were equally satisfied with the quality of care they are able to provide for patients with chronic pain.

Besides variability in services related to practice location, there also were differences by type of service. For example, multidisciplinary clinics were reported available by less than one quarter of our PCP respondents. Multidisciplinary pain clinics, which combine and coordinate psychological, medical, and physical therapies, are one of the most effective strategies for managing chronic pain, but also are very resource intensive.[28] Specialty pain clinics that provided interventional or medication management appeared to be more readily available but difficult to access. Other services, such as physical therapy and psychology or mental health clinics, were reported available at many clinic sites, although we do not know the extent to which these services supported the management of patients with chronic pain. Nonetheless, strategies that use a combination of more generally available resources (eg, physical therapy, clinical pharmacists, psychology clinics) to deliver pain-related care could prove to be an effective and efficient method of assisting PCPs with managing patients who have chronic pain conditions.

There are several limitations to this study. First, the results may not generalize to PCPs outside the VA system. Second, although our response rate was high for a provider survey (57%), our results could be biased if providers who were more (or less) experienced in treating chronic pain were more likely to respond. Third, although the initial part of the survey focused on a patient with multiple chronic conditions, the remaining sections asked about pain management and may have led some respondents to select pain control as a priority. To minimize potential bias the survey was titled "Real World Clinical Strategies for Patients with Chronic Conditions" and the instructions focused on managing patients with chronic

conditions including chronic noncancer pain. Finally, the satisfaction measures used on our analysis counted a response choice of 3, 4, or 5 as somewhat or mostly satisfied, versus a response choice of 1 or 2 as dissatisfied. However, our decision to interpret the midpoint response of 3 as somewhat satisfied (or alternatively as not dissatisfied) could lead to an overestimate of the percentage of providers identified as satisfied. The actual distribution of responses for the satisfaction questions is shown in the **Appendix** (available at **www.ajmc.com**).

Managing chronic pain is a significant challenge for PCPs. In 1998 the VA healthcare system enacted a National Pain Management Strategy, which included designating pain as the fifth vital sign.[29] In this study, more than 75% of the surveyed VA PCPs recognized chronic pain as a treatment priority, and a similar proportion were generally satisfied with the quality of care they were able to provide to patients with chronic pain. Yet some PCPs were not comfortable treating patients with chronic pain, and providers who were less confident about pain management also were less likely to identify pain control as a priority for a patient with complex medical and pain management issues. There also was variation in the reported availability of services for managing patients with chronic noncancer pain. Thus, further improving the management of patients with chronic pain may require both enhancing education and training opportunities for PCPs and increasing the availability of services to support the care of these patients. In health systems with constrained resources, such as the VA, strategies that combine the use of broadly available services such as psychology clinics and physical therapy could be an important mechanism for supporting both PCPs and their patients with chronic pain.

Take-away Points

Many VA primary care providers (PCPs) identify chronic pain as a treatment priority even among patients with other important chronic health conditions.

- Additional training opportunities for PCPs and better use of ancillary services may be needed to further improve care for patients with chronic pain.
- In healthcare systems with constrained resources, developing strategies that use broadly available services, such as psychology clinics and physical therapy, in combination could be an important mechanism for supporting both PCPs and their patients with chronic pain.

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