

Healthcare Professionals' Perceptions of Challenges to Chronic Pain Management

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Non-cancer-related chronic pain is a significant problem for many Americans. In 2016, 50 million US adults (20.4%) reported experiencing daily pain in the previous 6 months and nearly 20 million (8%) reported pain that limits daily activities.¹ Use of opioids to relieve pain is pervasive. The 2015 National Survey on Drug Use and Health reported that 37.8% of noninstitutionalized US adults used prescription opioids, 4.7% misused them, and 0.8% had a use disorder.² The most common reason for misuse, reported by 63.4%, was physical pain relief.² However, opioids may have limited effectiveness for relieving chronic pain and may have significant adverse effects.³⁻⁷

Given the broad scope of chronic pain and opioid abuse, developing multimodal solutions that provide effective chronic pain management based on pathophysiology is an increasingly important health priority. However, nonopioid pain relief approaches may be underutilized. Studies report limited provider confidence in managing pain^{8,9} and limited knowledge about use of opioids for chronic pain.¹⁰

We conducted a qualitative interview study to understand healthcare professionals' perceptions of challenges, gaps, and opportunities in chronic pain management.

METHODS

Participants

Using email and telephone contacts, we recruited participants from health systems taking part in Premier quality improvement initiatives. We identified stakeholders with interest and experience in chronic pain management who were from both larger and smaller hospitals across the United States (purposive sampling). We included a range of perspectives (physicians, nurses, quality improvement personnel, pharmacists) to ensure broad representation and promote generalizability of findings. Participants did not receive compensation or incentives for participation. Pfizer funded the study; Pfizer personnel did not participate in interviews and had no input into data analysis. The Advarra institutional review board approved the project as exempt research (Pro00028336).

ABSTRACT

OBJECTIVES: To explore healthcare professionals' perceptions of challenges to chronic pain management.

STUDY DESIGN: Qualitative interview study.

METHODS: Semistructured telephone interviews with healthcare professionals involved in chronic pain management and thematic analysis of transcriptions.

RESULTS: Respondents (N = 16) described multiple challenges to chronic pain management: Management occurs in a complex care context complicated by the multidimensional, subjective nature of pain. A lack of systematic approaches fosters variation in care, and clinicians lack time and resources to manage pain holistically. Efforts to date have focused primarily on opioid reduction versus strategic approaches to manage chronic pain across the system.

CONCLUSIONS: Comprehensive approaches to identify and manage chronic pain are nascent and, typically, narrowly focused on reducing opioid use. Respondents, however, recognized the importance of effective systematic management across inpatient and outpatient settings. These findings underscore the need to consider chronic pain as a chronic condition that warrants coordinated approaches to care such as standardized assessments; consistent, patient-centered outcome measures; and multimodal treatments that target both physical relief and underlying psychosocial factors.

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TAKEAWAY POINTS

Reported barriers to chronic pain management included a complex, variable care context; the multidimensional, subjective nature of pain; variation in approaches to pain; and limited resources to manage pain holistically. Most chronic pain management focuses on opioid reduction versus strategic management across the system.

- ▶ These findings align with other reports of fragmented episodic care in the literature and underscore the need for a comprehensive disease management approach to chronic pain.
- ▶ Comprehensive management—including understanding characteristics of pain and patients that may affect pain presentation, treatment selection, and response—can optimize care for patients and providers.

Data Collection

We conducted semistructured telephone interviews with healthcare professionals involved directly or indirectly in caring for patients with chronic pain to understand perceptions related to nonopioid pain management. We created an interview guide based on literature review and clinical practice experience. One of 2 members of the project team (C.P., N.A.S.) conducted each interview; all interviews were recorded (with participant consent) for further analysis.

Data Analysis

We conducted an inductive thematic analysis (content analysis) of interview data to understand respondents' experiences in managing patients' chronic pain and to identify themes. Team members (C.P., R.C., N.A.S.) coded and discussed an initial interview transcript to ensure alignment in approaches and preliminary codes. Two team members (C.P., N.A.S.) independently read and coded each transcript, assigning relevant codes using NVivo 12 software (QSR International, Melbourne, Australia). We developed the coding structure using pragmatic approaches, combining both bottom-up elements—developing codes from ideas and issues inherent in the data—and top-down elements, with issue identification informed by the a priori interview structure. We maintained an iterative codebook to record codes and operational definitions, and the team discussed differences to reach consensus on a final coding framework.

RESULTS

Interviews (each approximately 40-60 minutes) were completed with 16 healthcare professionals who self-identified as being engaged in chronic pain management, from either a prescriber or nonprescriber perspective (Figure). Across interviews, respondents described complex contexts surrounding chronic pain treatment. Chronic pain management is complicated by the multifaceted nature of pain, the complex presentation of physical or mental health comorbidities and acute and chronic pain, multiple health system touchpoints, and consequences of opioid overuse and misuse. We describe challenges under system, pain management, provider, and patient domains. Details and quotes supporting each challenge appear in the [eAppendix](#) (available at [ajmc.com](#)).

System-Level Challenges

Limited and inconsistent processes. Respondents noted limited or no processes for handling patients with chronic pain, whether in identifying and tracking patients along a care trajectory or in establishing consistent management approaches. Systematic approaches have been motivated by and focused on opioid reduction.

Transitions of care. Pain treatment across settings is often uncoordinated. It is challenging to follow up with patients after emergency

department (ED) visits if they lack a primary care doctor to communicate with or if a pain center is not available or accessible. Pain approaches established in one setting may not carry through in others.

Pain Management Challenges

Opioid restrictions. Mandatory opioid restrictions and protocols for opioid prescribing may leave some patients with chronic pain without effective pain management or may prompt providers to avoid treating pain altogether. Due to the potential for misuse of narcotic medications, respondents noted that healthcare professionals may end up positioned as drug gatekeepers instead of trusted partners in pain management.

Resource constraints. Respondents stated that limited resources contributed to ineffective pain management. Primary care providers may not be able to provide a full complement of pain management services to patients.

Provider-Level Challenges

Root causes. Respondents noted that the most effective chronic pain management addresses underlying causes and pathophysiology of pain, not just the symptom itself. This involves a detailed review of a patient's medical history, current medications, mental and physical health, and social, financial, and other life stressors to develop a thorough understanding of the patient's place on the pain spectrum. A detailed review can be difficult to obtain in a short patient visit and may require deeper investigation with other providers or psychosocial assessment.

Care variation. Approaches to treating chronic pain also varied, with limited guideline adherence or standardized approaches.

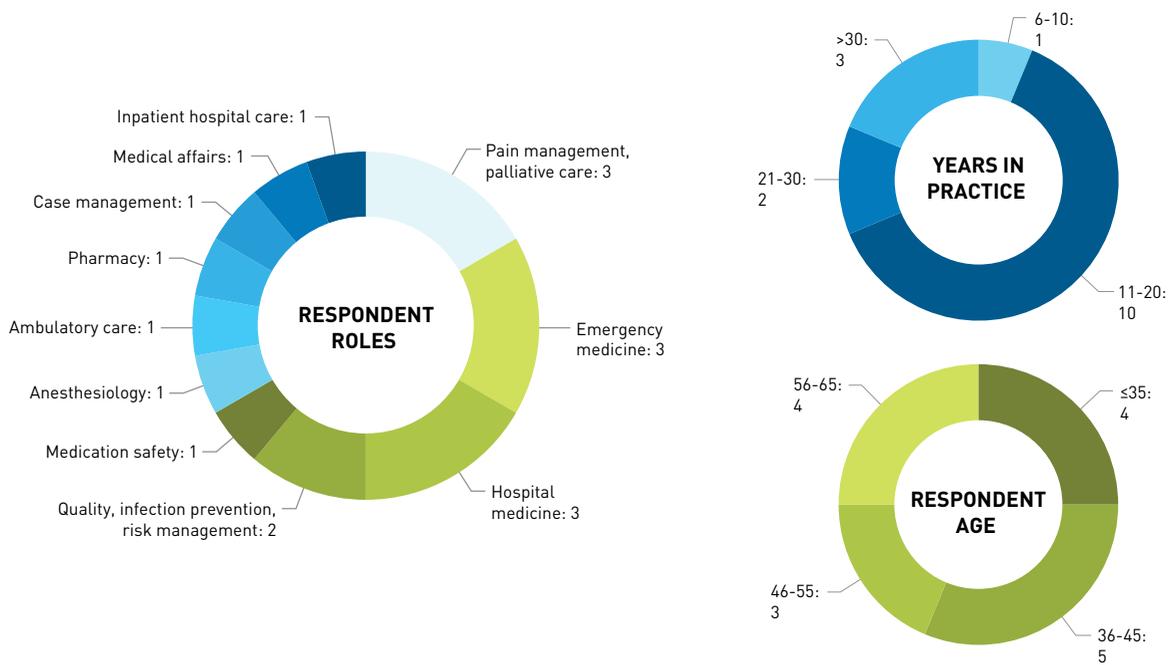
Lack of education. Many providers are not adequately trained in understanding pathophysiology or treatment of pain and the physiologic effects of both opioid and nonopioid treatments.

Lack of communication. Several respondents suggested that better communication among providers is needed, whether among inpatient providers or between inpatient and outpatient providers. In some cases, providers' only connections may be through the electronic health record.

Patient-Level Challenges

Complex experience of pain and pain management. Each patient's experience of chronic pain is subjective, complex, and unique, which

FIGURE. Respondent Demographics^a



^aRespondents could report as many practice roles as applied. Numbers reflect counts of individuals endorsing each item.

influences screening, diagnosis, treatment sought and received, and treatment effectiveness. Respondents indicated that patients with chronic pain may enter the care continuum at various points and proceed on various pathways, which may affect their experience of pain and treatment for it.

Perception of pain and therapeutic expectations. Respondents explained that reframing how patients use pain as a barometer for healing is challenging; it requires seeing pain as information to inform observations that may help avoid reinjury. It is crucial to discuss not only what treatment options may be available but also why certain ones may be more effective for long-term pain management.

Cost. Cost is often an issue in chronic pain management, as patients face insurance deductibles and other out-of-pocket costs.

DISCUSSION

Our findings, which include broad healthcare professional perspectives, mirror the complex and fragmented nature of US healthcare that is evident in studies with narrower interviewing frames.¹¹⁻¹³ The lack of consistency noted in national reports and healthcare literature is evident in respondents’ discussions of barriers to comprehensive pain management. Our exploration identified a lack of comprehensive approaches to integrating systemwide pain management, from identifying patients with chronic pain to making treatment decisions to transitions of care. Importantly, this exploration also provides insights into gaps and challenges in

chronic pain management beyond managing opioids. Respondents noted that opioids add further complexity to an already complicated pain management context.

Guidelines for chronic pain conditions echo complexities in pain management. Guidelines addressing general chronic pain, neuropathic pain, lower back pain, osteoarthritis, migraine, fibromyalgia, and other conditions have been published.^{7,14-25} Although specific treatments for various pain conditions differ, guidelines for the same condition often vary and complicate protocol consistency.²⁶ Moreover, providers want input into guidelines or protocols for pain treatment: In our sample and in the literature,²⁷ providers noted concerns about “cookbook” approaches if guidelines are mandated without allowance for provider autonomy, clinical expertise, and patient values. Responding to each patient’s unique pain experience and context in patient-centered ways while minimizing variation is a key tension in healthcare.²⁸

As noted, pain management among our sample was largely limited to opioid reduction; respondents recognized the need to formalize chronic pain management approaches but lacked resources for doing so. Without clear system strategies, respondents recognized that pain may be managed differently at different touchpoints (eg, ED, inpatient, ambulatory). Management approaches that are solely focused on limiting opioids also have unanticipated consequences.²⁹⁻³¹ Respondents remarked that restricting prescribing—without identifying underlying pathology, selecting appropriate treatment, and communicating treatment rationale—will not solve problems

TRENDS FROM THE FIELD

and can create new ones. Mandatory prescribing restrictions make some providers reluctant to treat pain or may leave some patients without options.³²⁻³⁴

Respondents emphasized the need to understand underlying causes of pain to inform appropriate, holistic treatment decisions. Pain is multifaceted, yet it is often treated solely as a symptom, and it is difficult to track across the system because of deficiencies in administrative coding.^{35,36} Fortunately, the 11th version of the *International Classification of Diseases* includes comprehensive pain diagnoses,³⁶ and the new coding incorporates severity and psychosocial factors (eg, fear, anger, relationships), which may help improve multimodal treatment, health research, and policy.^{36,37}

Additional provider education is also key to improved management. A 2018 systematic review reported considerable variation in pain management content and learning time in global medical school curricula; in the United States, students received a median 11 hours of pain-related content, and 96% of US medical schools lacked compulsory dedicated teaching in pain medicine.³⁸

Education is 1 element that may facilitate culture change at provider, patient, and system levels to promote shifts in pain management. Such change may include provider education in pain mechanics and assessment; holistic understanding of etiology, patient education, and engagement; and development of trusted therapeutic relationships, a need echoed in other reports.^{29,39-42} To develop system-supported therapeutic patient-provider relationships, realistic expectations must be set and followed by the health system, providers, and patients. All 3 must understand and work toward pain management strategies that look beyond reliance on medication to mask pain and include physical and psychological multimodal therapies.¹²

Change at the patient level necessitates that patients see beyond quick fixes and embrace preventive care such as weight loss and appropriate self-management.^{13,29} Patients also need education on their pain condition, mental health, and treatment options.⁴² Similarly, promoting societal awareness of social determinants of health and appropriately tailored interventions may help improve pain management.^{12,40}

System-level changes include shifting the notion that pain is merely a symptom. The 2016 National Pain Strategy endorses a multidisciplinary, population-based, disease management approach to pain, noting that "...the care model must shift from the current fragmented fee-for-service approach to one based on person-centered care, better incentives for prevention (primary, secondary, and tertiary) and for collaborative care along the continuum of the pain experience..."¹² Moving from fee-for-service to value-based payment arrangements that link payment mechanisms to quality and value in care may also change systems' approaches to pain-related care, particularly patient-centered care and care coordination.^{43,44}

A shift toward viewing chronic pain as a chronic condition versus a symptom also necessitates change in systematic approaches across the care continuum.^{45,46} For example, standardized assessments may help target pain management appropriately. Outcomes associated

with different approaches are variable, and understanding pain characteristics and patient attributes that may affect response to specific approaches can optimize care.⁴⁶⁻⁴⁸ Selecting appropriate multimodal treatments may help prevent longer-term pain issues. Understanding patients' perceptions of pain can engage them in care.⁴⁹ And managing care transitions between hospital and outpatient settings can promote continuity, a potential issue in inpatient, ED, and ambulatory care settings.^{12,50}

Limitations

These findings should be interpreted in light of potential limitations. We interviewed a small number of participants, although the sample size aligns with exploratory qualitative research methods.⁵¹⁻⁵³ The small participant number is mitigated by the breadth of perspectives represented in the interviews and surveys; however, generalizability of findings to the broader population of individuals who treat chronic pain, particularly in outpatient or primary care settings, is limited. Our findings, however, align with reports of issues in chronic pain management in the literature.

CONCLUSIONS

These findings underscore the need to consider chronic pain as a chronic condition that warrants coordinated care approaches, including standardized assessments; consistent, patient-centered outcome measures; and multimodal treatments that target both physical relief and underlying psychosocial factors. Chronic pain management occurs in a multifaceted care context complicated by the multidimensional, subjective nature of pain. Limited systematic approaches foster variations in care, and clinicians lack time and resources to manage pain holistically. Although comprehensive chronic pain identification and management approaches are nascent, efforts have focused primarily on opioid reduction versus strategic, systemwide approaches to manage chronic pain. Still needed is effective, systematic management of pain across settings that coordinates care and keeps the focus on each patient's unique medical history and concerns. ■

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eAppendix. Issue Details and Sample Interview Quotations Supporting Challenges

Challenge	Details	Representative Quotes
System-Level Challenges		
<p>Limited and inconsistent processes</p>	<ul style="list-style-type: none"> • Lack of systematic, guideline-based approaches to consistently assess pain level and functionality • Limitations in approaches to standardizing care for patients with chronic pain • Gaps in evaluation complicated by multifaceted nature of pain • Fragmented chronic pain treatment approaches in integrated delivery systems • Challenges in developing and consistently applying protocols • Care variability stemming from subjective nature of pain • Perceptions of “cookbook” medicine (inappropriate standardization, impingement on providers’ decision-making authority, lack of flexibility to manage unique cases) 	<p>We’re actually...in the rudimentary stages of even trying to address probably what most folks are way along in the gamut of doing something with this. We still, pretty much, every practitioner can handle it the way they want to. We do have just recently a pain management protocol put into place, but it’s not used very well....So like I said, we’re not doing a whole lot for it at this point. (P5, quality improvement leader)</p> <p>...I think the majority of the people want to try and not get people hooked on these things. And some of it’s probably more fear because with the way the [Drug Enforcement Administration] and everybody has been really zeroing in on providers and pharmacies over the last few years. So I think a lot of them now are more hesitant to, say, write large quantities to start with. Like I said, patients [who] are established on these types of medications, I think they know there’s a lot they can’t do about those, but I do think there’s more of an effort at the beginning of the stage to say, “Well, let’s try some other things before we go straight to this.” And...I don’t think that’s necessarily an organization where they’ve got together and said, “Hey, let’s make this approach.” I think it’s just doctors out of things they read in the paper and things they hear are trying to make some changes. (P9, pharmacist)</p>
<p>Transitions of care</p>	<ul style="list-style-type: none"> • Limited communication with primary care providers • Difficulty establishing a plan of care in hospital that may not be followed in ambulatory care due to lack of resources or ineffective coordination 	<p>The initial plan of care is to collaborate with their current prescriber. Because when they come in to our hospital system, if they are established with an outpatient provider or someone outside of our network, our goal is to collaborate and see—if they came in because they’re having side effects or problems with the medications—how we can safely coordinate a safe discharge plan and follow-up. If someone comes in and they have pretty bad chronic neuropathy or pain in their legs, to start them on a multimodal regimen, get them hooked back up with their primary care doctor for follow-up or pain specialist for follow-up...but the bigger part</p>

		is who is going to have the ongoing management? Because if chronic pain's not going away, who's going to help us when the patient leaves the hospital? (P7, nurse practitioner)
Pain Management Challenges		
Unanticipated consequences	<ul style="list-style-type: none"> • Focus shift from health problem solving to drug monitoring • Erosion of patient-centered approaches to manage chronic pain 	And, well, to be honest with you, we're probably not the best at managing it effectively because we only give no more than 3 days of any kind of pain medication. And with it being a nationwide problem, we also see a lot of them come back within 24 to 48 hours because our new program gives us the ability to track and see, "Okay, if you came to our [ED] today and then you went to another free facility [EDs] or institutions, it will track that for 96 hours." So we are seeing a lot of people hopping back and forth. So physicians are very wary about prescribing pain medication when they may actually need it...It may be that we're not effectively managing their pain. So it makes it difficult, to be honest with you. (P10, nurse)
		Where it gets kind of hairy, especially on the outpatient side, is when people have like 20 comorbidities. What do you do, because everything's contraindicated? Meaning, a lot of our patients who have all these comorbidities, some of the adjunct or nonopioid pain medications are not safe to give. So you're looking at what's the safest medication and the standpoint? And sometimes that ends up being opioid pain medication. (P7, nurse practitioner)
Resource constraints	<ul style="list-style-type: none"> • Lack of pain specialists • Lack of community resources (eg, cognitive behavioral therapy, meditation) • Lack of time to assess current medications and underlying causes of pain 	Because of the need for individualized multidisciplinary approaches, this is really hard to do effectively out of an ordinary primary care office. If a primary care office then has within it someone who can do cognitive behavioral therapy, who has somebody who comes in and teaches meditation once a week—I mean, there's probably 3 or 4 places in the country that have that resource depth. So they need to be able to refer people, and it needs to be close enough that the patients can get there, and that's really the problem. (P12, MD)

	<ul style="list-style-type: none"> • Lack of time in discharge process for detailed pain management patient education 	
Provider-Level Challenges		
Root causes	<ul style="list-style-type: none"> • Disparate or difficult-to-access sources of information that may be incomplete or contradictory • Lack of time for detailed investigation for each patient • Mental health overlooked as root cause of pain 	But when you look at our society as a whole and the pain—back pain’s probably one of the number 1 pains, right? Back pain, knees and joints, and stuff—and...I wonder if it’s not more, “I want a medical condition because I’m dealing with anxiety/depression, and I’m using other pain medications, and now somebody gave me a narcotic, and I feel really good, and it’s kind of numbing my anxiety/depression.” So it’s that dependency issue to kind of blur my anxiety/depression issues... (P14, nurse)
Variation in care	<ul style="list-style-type: none"> • Long-term prescribing habits that dictate prescribing choices for medications may be ineffective for most chronic pain management • Willingness of physicians who have recently completed training to consider diverse approaches to pain management 	<p>Between all providers, it is not [a] standardized process at all. There is a lot of variability there. So that’s where I was getting to with a consistent protocol could definitely be helpful. (P3, nurse)</p> <p>We know we have some prescribers [who] really go for the heavy narcotic right out of the gate. (P14, nurse)</p>
Lack of education	<ul style="list-style-type: none"> • Need for increased awareness about pain management strategies, especially multimodal and nonopioid therapies • Need for better understanding of differences between primary care and specialty pain management • Need to reframe pain for more productive patient conversations about expectations for pain management versus elimination of pain 	The biggest problem when I look at—there is primary care pain management and then there’s specialty pain management. And a lot of the consults I get for pain patients, they’re not specialty-level pain questions. And there’s a huge lack of knowledge amongst primary and specialty docs about just the very, very simple, run-of-the-mill pain stuff. (P4, MD)

	<ul style="list-style-type: none"> • Need to improve identification of patients who may have risk factors for or unaddressed issues with chronic pain • Need to improve identification of patients who may require further tests, screenings, or referrals for more thorough pain assessment 	
Lack of communication	<ul style="list-style-type: none"> • Challenges in determining a patient’s current plan of care and contacting the provider prescribing it or providing it • Lack of coordination with other providers/prescribers to ensure follow-up assessment, adjustment, and updates on patient progress. • Struggles to facilitate communication due to team structure, lack of time, lack of clinic setup, or geographic distance 	The more you educate and get doctors working together—and that’s the thing, too, is making it like a team approach. Just because a doctor refers somebody out for pain management shouldn’t be the end of it. It’s not like they now wipe their hands clean of the situation. They should stay, have conversations with that other office, or stay in the loop about, “Okay, well, you went to that doctor. What is he telling you to do? What medication are you on?” I mean, that’s the other key, too, is communication [happening among] all the providers for the patient. (P9, pharmacist)
Patient-Level Challenges		
Complex experience of pain and pain management	<ul style="list-style-type: none"> • Acute episode of chronic pain • New instance of pain that may signal the development of a chronic condition • Gradually increasing severity of chronic pain that may lead them to become “frequent flyers” in the ED • Multiple comorbidities, behavioral health issues, and/or sleep issues 	The most difficult thing in pain management is every patient is different. The way they respond to pain, the way they respond to medications, their mental health, their physical, their other medical comorbidities. (P7, nurse practitioner)
		I think that patients, in general, will describe pain because it’s the word that we all know. But I think for a lot of our patients, what they’re describing as pain is a little different than when we look at a physiologic level of pain, your pain receptors, and what they’re actually describing to you is their suffering. And some of that suffering is because of what we think about as pain, and some of that is because of lots of different reasons. (P4, MD)

Pain perception and expectations of therapy	<ul style="list-style-type: none"> • Patients may have unrealistic expectations for complete pain relief versus managed pain • Patients may have assumptions about what treatments are effective for their specific type of pain • Patients may consider opioids to be the only effective treatment • Patient satisfaction with a provider may be tied to whether they receive the treatment they want versus treatment that effectively manages pain 	Our patients will flip providers in lieu of they know who the heavier prescribers are. And they know when they come into an [ED] on a certain night that they're going to get a little better prescription than others. (P14, nurse)
Cost	<ul style="list-style-type: none"> • Nonnarcotic treatments may be more expensive • Effective treatments may not be financially feasible • Processes to get insurance-covered treatments can be complicated, time-consuming, and expensive 	<p>A large barrier is insurance company coverage. Say certain medicated creams or certain treatment modalities like acupuncture are generally not covered by patients' insurance. So if you have someone that lives on a fixed income, there are a lot of things we can't offer, in truth I can't offer. It's difficult to offer when you know someone can't pay for those things. So insurance companies are a major barrier in what we can offer in the form of nonopioid medications, nonopioid treatments, or nonpharmacological treatments. (P7, nurse practitioner)</p> <p>...When you're looking at lidocaine patches, it's cheaper for them to just get a prescription for [an opioid] than it is for lidocaine patches. (P15, pharmacist)</p>

ED indicates emergency department.