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The Hospitalist Perspective on Opioid Prescribing: A Qualitative Analysis

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Abstract

Background—Pain is a frequent symptom among patients in the hospital. Pain management is a key quality indicator for hospitals and hospitalists are encouraged to frequently assess and treat pain. Optimal opioid prescribing, described as safe, patient-centered and informed opioid prescribing, may be at odds with the priorities of current hospital care, which focuses on patient-reported pain control rather than the potential long-term consequences of opioid use.

Objective—We aimed to understand physicians' attitudes, beliefs and practices towards opioid prescribing during hospitalization and discharge.

Design—In-depth, semi-structured interviews

Setting—Two university hospitals, a safety-net hospital, a Veterans Affairs hospital, and a private hospital located in Denver, Colorado or Charleston, South Carolina.

Participants—Hospitalists (N=25)

Measurements—We systematically analyzed transcribed interviews and identified emerging themes using a team-based mixed inductive and deductive approach.

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Results—Although hospitalists felt confident in their ability to control acute pain using opioid medications, they perceived limited success and satisfaction when managing acute exacerbations of chronic pain with opioids. Hospitalists recounted negative sentinel events which altered opioid prescribing practices in both the hospital setting and at the time of hospital discharge. Hospitalists described prescribing opioids as a pragmatic tool to facilitate hospital discharges or prevent readmissions. At times, this left them feeling conflicted about how this practice could impact the patient over the long term.

Conclusions—Strategies to provide adequate pain relief to hospitalized patients, which allow hospitalists to safely and optimally prescribe opioids while maintaining current standards of efficiency, are urgently needed.

Keywords

hospitalist; opioid; opioid prescribing; discharge; efficiency

Introduction

Pain is a frequent symptom among patients seen in the hospital.¹⁻³ Hospitalized patients often suffer before they come to the hospital and are commonly prescribed opioids in the months preceding their hospital stay.⁴ Adequate pain control is important because uncontrolled pain is associated with higher levels of depression and anxiety among hospitalized patients.⁵ In 2011, the Institute of Medicine called on healthcare providers to improve pain assessment and management in healthcare delivery.⁶ Since then, pain management has become a key quality indicator for hospitals and providers are encouraged to frequently assess and treat pain.⁷⁻¹⁰ Although the use of opioids for pain management among hospitalized patients is routine, the amount of opioids prescribed per patient varies widely between institutions.¹¹ In-hospital guidelines for the optimal management of acute exacerbations of chronic pain are lacking.

Pain management also carries risks. Recently, the Centers for Disease Control and Prevention urged clinicians to prevent opioid overdoses by following best prescribing practices including screening patients for substance use disorders, mental health issues, and avoiding combinations of opioids and sedatives^{12,13} These guidelines may be at odds with the priorities of current hospital care, which focus on patient-perceived pain control rather than potential long term consequences of opioid use.^{7,8,14} In light of the competing demands to provide adequate pain relief to hospitalized patients while optimally prescribing opioids, we sought to understand physicians' attitudes, beliefs, and experiences, which inform opioid prescribing practices during hospitalization and at discharge.

Methods

Study Design, Setting and Participants

Between January 2015 and August 2015, we recruited a convenience sample via email solicitation from approximately 135 hospitalists practicing in Colorado and South Carolina.¹⁵ Fifty-three physicians responded. We conducted 25 in-depth, semi-structured interviews with physicians who represented the average hospitalist practicing in the United

States in terms of years in practice and gender.¹⁶ We enrolled physicians working in four distinct types of hospital settings, including two university hospitals, a safety-net hospital, a Veterans Affairs hospital, and a private hospital. We used purposive sampling to achieve an even distribution with respect to gender and years in practice.¹⁷ Interviews were either face-to-face (n=16) or over the telephone (n=9) and were performed outside of the physician's clinical shift. Informed consent was obtained from study participants and the interview duration was approximately one hour. The study was approved by the Colorado Multiple Institutional Review Board.

Interview Guide Development and Content

Members of our multidisciplinary team (S.L.C., I.A.B., S.K.) developed an interview guide (Appendix) designed to explore hospitalists' attitudes and practices about opioid prescribing during hospitalization and at discharge. Initial interview questions were developed with input from health sciences researchers (S.E.L., A.D.D., R.D.) and qualitative researchers (I.A.B., S.K.). During data collection, we occasionally edited or added questions to our guide in order to more fully explore new issues or information emerging from our interviews. Through open-ended interviews, we sought to capture a qualitative narrative in which hospitalists would describe their attitudes and practices which may influence opioid prescribing within three major domains pertinent to clinical practice: patient factors,^{18–23} physician factors,^{24–27} and institutional factors.^{27–32} These domains were based on prior literature. All participants received a \$25 gift card.

Data Analysis

Interview transcripts and a demographic survey were our primary data sources. Transcript files were entered into qualitative data analysis software (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany). We used a mixed inductive and deductive³³, participatory, team-based approach to explore patterns and themes related to attitudes and practices around opioid prescribing.^{34,35} A deductive or "top down approach" was used to link text to predefined codes and categories based on literature, prior knowledge and our interview guide. An inductive or "bottom up" approach was used to identify new codes and categories that emerged from the data, including unanticipated information relevant to our research questions.

Team members included two hospitalists (S.L.C., A.D.D.), two research assistants with experience in qualitative methods (S.E.L., R.D.), an addiction medicine physician and researcher (I.A.B.), and a medical anthropologist (S.K.). S.L.C. performed initial coding using an '*a priori*' template which reflected the primary areas of interest in the study. The codes were categorized as patient, physician and institutional factors. Using this template as a guide, three other team members (S.E.L., A.D.D., and R.D.) independently coded three transcripts by assigning predefined codes to text and assigning new codes to emergent findings. Using this subset of four transcripts, the team reached a consensus on initial codes to be applied to the remaining transcripts. In weekly meetings, team members discussed and modified the codebook based on inconsistencies noted between team member, to refine the coding scheme and to ensure consensus. Through group consensus, codes were condensed into a list of categories, subcategories and emergent times, i.e., themes which did not

originate from summarized answers to specific interview questions. The team identified emergent themes represented across all major domains (Table 1). Three of the most prevalent themes representing physicians' personal opioid prescribing practices are reported here. The study team determined that thematic saturation was reached after 25 interviews as additional interview data created little change to the codebook and no new patterns or themes emerged.

Results

Of the 25 hospitalist participants who were all trained in Internal Medicine, 16 (64%) were women. The majority were non-Hispanic White, 21 (84%). Nine physicians (36%) completed residency within the past 5 years, 12 (48%) completed residency within the past 5–10 years, and 4 (16%) completed residency >10 years ago. Sixteen (64%) hospitalists practiced medicine in Colorado where 8 (32%) worked in a safety-net hospital, 5 (20%) worked in a university hospital and 3 (12%) worked in a Veterans Affairs hospital. Nine hospitalists (36%) practiced in South Carolina where 2 (8%) worked in a university hospital and 7 (28%) worked in a private hospital (Table 2).

Emergent themes described here include 1) hospitalists' perceived success, satisfaction and comfort when prescribing opioids for their patients' pain management, 2) the influence of physicians' professional sentinel experiences on opioid prescribing practices, and 3) opioid prescribing as a tool to improve efficiency in the hospital. Additional quotations to support emergent themes are listed in Table 3.

Perceived Success, Satisfaction, Comfort When Prescribing Opioids for Pain Management

Providing adequate pain control to their patients was of utmost importance to hospitalists and influenced opioid prescribing. Hospitalists felt confident in their ability to control acute pain using opioids, but notably perceived limited success in achieving adequate patient-perceived pain control when treating acute exacerbations of chronic pain with opioids. A physician described his confidence in treating severe, acute pain:

“If someone is dying of cancer, or if they have an acutely broken femur, I don't really care if they are actively in the 12-Step Program or Narcotics Anonymous to stay sober. That pain is real and there is no effective pain medicine on earth except for opioids”.

Managing exacerbations of chronic pain with increasing opioid doses left physicians feeling frustrated and uncomfortable, especially when they lacked objective findings to explain the reported pain. Physicians were concerned that, by increasing opioid doses, they may be contributing to opioid dependence or addiction. A physician explained his dilemma when treating chronic pain:

“[I am uncomfortable treating] people that you classify with chronic pain syndrome. There is that terminology you use for people who have subjective pain, out of proportion to objective findings. In my experience it is a black hole. You never get an adequate level of pain control and you keep adding the doses up and

they get habituated. An end point is very difficult to achieve. Not like with acute pain.”

Hospitalists described awareness that patients’ reports of pain management were part of evaluation of their care and expressed concern that these patient-perceived pain control metrics for quality care were inappropriately applied to patients with chronic pain, and may even be unsafe. A physician explained his experience with chronic pain management among hospitalized patients:

“All of these things you do for patient satisfaction set up people, who aren’t ever going to be without pain, to fail. They have pain all the time and now you are asking them about their pain. Well, of course their pain is not controlled, because their pain is never going to be less than 5 out of 10, period. And no opioid is going to get them there, unless they are unconscious.”

Professional Experiences Influenced Opioid Prescribing Practices

Physicians reported little opioid specific training during residency, and so opioid prescribing practices were shaped by the physicians’ clinical experiences. Hospitalists reflected on negative, sentinel events which shaped their opioid prescribing practices in the inpatient setting or led to them to adopt risk-modifying behaviors when prescribing opioids at hospital discharge. Negative experiences varied and included a fatal overdose and suspected diversion of opioids for sale. A physician reflected on an avoidable in-hospital overdose which left her more guarded when prescribing opioids:

“It is both your cumulative experience and, sometimes, when you’ve had a negative experience, it really biases how you think. I’ve had an experience where my patient actually overdosed. She crushed up the oxycodone we were giving her in the hospital and shot it up through her central line and died. We’ve all had experiences with opioids being abused. This just happened to be a very dramatic thing that happened right under my nose. It just makes me more guarded, in terms of my practice, and the lengths people will go through to do harm to themselves with opioids.”

Hospitalists recognized that some of their patients had limited resources. They expressed suspicions that opioid prescriptions, in some cases, represented a form of currency for patients to supplement their income. A physician stated:

“I think our population can divert quite a few meds. I think their financial situations can be really tenuous. Sometimes they sell pills to survive.”

Physicians described past experiences with patients who were deceptive to get an opioid prescription, which left them much more reticent to prescribe the drugs. For example, a physician described how a patient altered her opioid prescription following hospital discharge.

“I saw a patient who had her gallbladder removed. She asked for an opioid script until she could see her primary care physician so I gave her a few days of opioids. I later found out she had forged my script and had changed it from 18 pills to 180

pills. She took it all over the state to try to fill. I got a call from the DEA and had to write them a letter. I think she's in prison now."

These experiences inspired hospitalists to adopt strategies around opioid prescribing that would make it harder for a patient to misuse a prescription or to jeopardize their DEA license. A physician discussed her technique to prevent patients from selling their opioid prescriptions following discharge:

"When I write the prescription, I put the name of the patient on the paper prescription with the patient's sticker on top. I don't want the patients to pull it off and sell the prescription, especially when it is my license."

Another physician described feeling reassured when she is able to verify a patient's opioid dose in a statewide prescription monitoring program:

"Seeing they have filled opioids before supports your decision making. You just sort of cross your finger that this time my DEA number is not going to come up on the next drug bust!"

The Use of Opioids to Improve Institutional Efficiency

Hospitalists felt institutional pressure to reduce hospital readmissions and to facilitate discharges. Pain was a common complaint among patients admitted to the hospital and uncontrolled pain often prolonged a hospital stay. In these ways, physicians viewed opioid prescriptions as a tool to buffer against readmission or long hospital stays. A physician described his approach to more readily prescribed opioids when he felt it would prevent a patient from being rehospitalized:

"If a patient tells you that they are in pain and they are receiving opioids in the hospital, and I have a strong sense that this is a person who comes back to the hospital easily and regularly if something is not right, I'm more likely to make sure that patient has adequate pain medicine for a reasonable duration of time to reduce the chance that they get readmitted just for pain alone."

Physicians used opioids as a tool to facilitate discharges and prevent readmissions; yet doing so sometimes left them feeling conflicted. On one hand, they felt pressure to maintain efficiency; on the other hand, they recognized it might not be in the patient's best interest to receive a higher than necessary quantity of opioids at discharge. A physician described his dilemma:

"For the acute pain, I usually give them 15 to 20 [opioid pills]. For the chronics, maybe a little bit more like 30. A lot of them have told me they can just buy it off the street anyway. If we can help keep them out of the hospital, we are probably doing them a disservice [by prescribing more opioids], but we are also not clogging up our system."

Similarly, another hospitalist described opioid prescribing at discharge as a way to reduce hospital costs and prevent a readmission, despite feeling uncomfortable when a patient's diagnosis of pain was nebulous:

“If the patient comes back and gets readmitted to the hospital when they don’t have pain medicine, it’s a \$3,000.00 two-day stay in the hospital that was unnecessary. And when they have a prescription for a month of pain medicine, they stay out of the hospital. That is utterly pragmatic ...there is no other way to do it and it’s going to work. At other times, especially when a patient lacks a diagnosis which is known to cause pain, it can feel cheap and dirty.”

Discussion

To our knowledge, this is the first study to qualitatively explore the hospitalist perspective on opioid prescribing during hospitalization and at discharge. Hospitalists expressed discomfort and dissatisfaction when managing acute exacerbations of chronic pain with opioid medications. This stemmed from the discordance between the patients’ expressed pain and the lack of objective clinical findings of pain, a perceived inability to adequately provide relief to patients with chronic pain, and a concern of contributing to future opioid dependence. Hospitalists identified negative professional experiences with opioid prescribing as a factor which influenced their opioid prescribing practices. Hospitalists also described using opioids as a tool to reduce readmissions and facilitate hospital discharges in order to contain healthcare costs. This sometimes left them feeling conflicted, especially when their patients lacked clear, pain-related diagnoses.

Hospitalists were reluctant to increase patients’ chronic opioid therapy doses, even when patients had acute exacerbations of chronic pain. Management of chronic pain presents a unique challenge to hospitalists. Existing clinical guidelines for chronic pain management are directed to the primary care physician.^{36,37} Acute exacerbations of chronic pain are commonly seen in hospitalized patients and should not be overlooked.⁴ Management strategies which include in-hospital guideline-based opioid dose adjustments are needed to address some of the concern hospitalists feel when managing chronic pain exacerbations. Involving the patient in the decision to temporarily increase their opioid dose may improve patient-perceived pain control.³⁸ In addition, when possible, close communication between the hospitalist and the primary care physician may alleviate some of the uncertainty hospitalists feel when they prescribe an increased dose of chronic opioid therapy.^{39,40}

Opioid prescribing practices by hospitalists were influenced by past negative experiences. This principle, defined as negativity bias, refers to the notion that in most situations, negative events are more salient, potent and dominant than positive events.^{41,42} Hospitalists recounted situations in which their patients overdosed on opioids in the hospital or forged an opioid prescription, which they perceived as jeopardizing their DEA licenses or reputations. They described concrete practice changes they made in an attempt to avoid these situations in the future. While it is appropriate to critically assess practice behaviors which contribute to unanticipated patient outcomes, there may be unintended consequences when providers narrowly focus on the negative, including the under-treatment of pain. Focusing on successful outcomes associated with opioid prescribing, rather than negative outcomes, may lead to less restrictive, and more thoughtful, opioid prescribing practices. Furthermore, standardizing opioid prescribing to protect physicians from medico-legal consequences

related to opioid diversion and fraud could lessen physicians' fears when prescribing opioids both during the hospitalization and at hospital discharge.

Hospitalists described prescribing opioids as a tool to improve efficiency in their practice, although at times it left them feeling conflicted. We interpreted this as a form of cognitive dissonance.⁴³ Hospitalists are acutely aware of the need to prevent costly hospital readmissions for their own success and longevity, which may lead them to become less judicious about how they prescribe opioids.⁴⁴⁻⁴⁶ Our findings suggest a delicate balance between the potential benefits and drawback of using opioids to improve efficiency. While it is important to provide pain relief to the patient which can facilitate a discharge or delay time to next hospital admission, using opioids to smooth a difficult discharge may be detrimental to the patient. These findings highlight the competing pressures hospitalists face to deliver value-based care^{46,47} while maintaining patient-centered care.^{48,49}

This study has several limitations. First, qualitative data provide depth to the understanding of a behavior, but not breadth.^{50,51} Therefore these results may not be generalizable to all hospitalists. We included a convenience sample of hospitalists who practiced in diverse settings including academic and private hospitals and the western and southern regions of the United States. The majority of the hospitalists interviewed had clinical experience less than 10 years. A national survey of hospitalists found the mean years of experience to be 6.9 years;¹⁶ thus the hospitalists we interviewed are likely representative of hospitalists nationally when considering clinical experience. Second, our interview guide was informed by prior literature and an *a priori* knowledge based on our experience as practicing hospitalist physicians. Interviews were conducted by two hospitalists who may have had similar experiences as those being described by the interviewees. Having shared experiences facilitated rapport and understating between the interviewers and participants, at the same time, however, shared experiences may have narrowed the focus of the interviews, eliminating themes that were already assumed. Lastly, hospitalists who chose to be interviewed may have participated because they felt strongly about the issues discussed and may not fully represent the population from which the sample was drawn.¹⁵

The development of evidence-based strategies to promote optimal opioid prescribing for the management of acute exacerbations of chronic pain among hospitalized patients may benefit both hospital providers and patients who have a mutual goal for safe and effective pain relief. Methods to provide adequate pain relief to patients which allow hospitalists to maintain efficiency, while ensuring protection from medico-legal consequences related to opioid diversion or opioid overdose, are urgently needed.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

A Complete List of Identified Emergent Themes with Hospitalist Physicians Regarding Opioid Prescribing Practices*

Perceived success, satisfaction, comfort and the use of opioids for pain management*
Professional experiences influenced opioid prescribing practices*
The use of opioids to improve efficiency*
Skepticism between other physician subspecialty types and opioid prescribing practices
Unintended consequences of patient perceived pain control metrics and opioid prescribing
Lack of trust with patients when reported pain level were not supported with objective data
Resident burnout contributed to a lack of empathy and under treatment of pain
Limited perceived risk of personal opioid prescribing practices and patient overdose with short acting opioids
Unreal expectations by patients to have complete pain eradication leads to overprescribing.
Recognition that patient profiling impacts personal opioid prescribing practices

* Discussed in manuscript

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Table 2

Participant Characteristics (N=25)

Female, no. (%)	16 (64)
Race/ethnicity, no. (%)	
White, non-Hispanic	21 (84)
Asian, non-Hispanic	4 (16)
Years post residency, no. (%)	
<5	9 (36)
5–10	12 (48)
>10	4 (16)
State of Practice, no. (%)	
Colorado	16 (64)
South Carolina	9 (36)
Private Hospital, no. (%)	7 (28)
Academic Institution, no. (%)	
Safety-Net Hospital	8 (32)
Veteran Affairs Hospital	3 (12)
University Hospital	7 (28)

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Table 3

Selected Emergent Themes with Illustrative Quotations

Theme	Illustrative Quote
Perceived Success, Satisfaction, Comfort and the Use of Opioids for Pain Management	<p><u>Acute Pain:</u> “I’m more comfortable treating acute pain. With chronic pain, it depends on the circumstance. There are certain people who have objective reasons to have chronic pain, for instance they have severe degenerative disc disease, for example. With chronic pain...let me just say, getting their pain under control is quite challenging. Acute pain is much more straight forward.”</p>
	<p><u>Chronic Pain</u> “If I am treating an exacerbation of someone’s chronic pain, it makes me a little less comfortable as far as sending people out on large doses of opioids because of the whole addiction thought behind it. And you don’t want to start or feed people’s addiction. Or, you know, lead them to it, in the future, requiring increased doses of opioids.”</p>
	<p><u>Chronic Pain:</u> “I have a hard time feeling like I’m very successful with people who have chronic non-cancer pain who come in for an exacerbation. Unless I can figure out clear reasons for that exacerbation, I feel I rarely succeed in having the patient, the providers, and the caregivers be happy. It is an unrewarding situation all around.”</p>
	<p><u>Chronic Pain:</u> “I’m less comfortable treating chronic pain because we don’t know the patients as well, I think, in the hospital, and you just worry about people abusing the system to get their needs met while they are in the hospital. We don’t have much objective data in terms of assessing pain, and you know, they are on chronic narcotics, you don’t really know what to believe, I guess.”</p>
Professional Experiences which Influenced Opioid Prescribing Practices	<p><u>In Hospital</u> “I had one horrible experience. I had a young woman who came in with chronic abdominal pain. She told me how much opioids she took. It was before there was a statewide database and I couldn’t verify her doses. I gave her what she told me she was taking. I hadn’t put a pulse ox on her which I always do now because it makes me feel better. Later the nurse called and said she wasn’t responsive. I put her on pulse ox and she was satiating 30% and blue. A code was called and we brought her back. That was in my mind for ever, I almost killed a 23 year old.”</p>
	<p><u>In Hospital</u> “I think past experiences inform what I do now. I mean it’s not that I’ve murdered anybody, but there was a time when I took over a patient and didn’t realize that, while she had terrible pain from her restless leg syndrome, she also had severe pulmonary hypertension. I gave her 5 mg of Oxycodone. She ended up somnolent with hypercarbic respiratory failure. I think that is something that will always stick in my head.”</p>
	<p><u>Discharge</u> “When discussing what type of opioids prescribed at discharge....I worry about, not just deliberate diversion, but for the patient being robbed, for the type of opioid I might choose. So I might do Oxycodone instead of Percocet. Percocet, itself, has a higher street value than Oxycodone. That may be completely false, but I think of it as a name brand that people want.”</p>
	<p><u>Discharge</u> “I think many providers, including myself, try to minimize the use of opioids when we can. I think we are all concerned every time we write, you know, our DEA number. Even when we have other providers ask us, you know, to prescribe opioids for their patients because they are out of the hospital or something like that, it is always a touchy subject. Because I think we all feel like our license is always at risk every time we are writing opioids.”</p>
	<p><u>Discharge</u> “I give them what they need but I want them to be seen in follow-up. I encourage that by giving them a shortened course. I’m more skeptical. I’ve seen people misuse, have bad side effects and overdose on opioids. I worry about that so I tend to prescribe shorter courses and less.”</p>
The Use of Opioids to Improve Efficiency	<p>“There is always the group of patients [for whom] we’ve done everything we can. We set up follow-up. If giving you a few days of Percocet is going to help you leave the hospital comfortably and stay out of the hospital for appropriate reasons, then we give them a few days. It’s horrible but...”</p>
	<p>“I’ll give 4 or 6 weeks’ worth of opioid medication to the chronic abdominal pain patients, the ones who have ERCPs scheduled for every 4 or 6 weeks. You sort of end up managing their chronic pain. It’s the</p>

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Theme	Illustrative Quote people that we know. If you don't give them a month's worth of pain meds, they are going to come back in to the hospital. Because they always come in when they run out." <hr/> "I think physicians overprescribe opioids because we don't want people to bounce back to the hospital. We don't want them to have acute pain at home and have to go back to the ER to be readmitted. You don't want someone to be in pain. I think that sometimes people go overboard. I also think that sometimes physicians gauge like, oh, this person isn't a huge risk, and maybe give them more opioids than necessary."
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