

Screening for Opioid Misuse in the Nonhospitalized Seriously Ill Patient

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Abstract

Background: Responding to an epidemic of opioid-related deaths, guidelines and laws have been implemented to promote safe opioid prescribing practices.

Objective: This study evaluates differences in screening practices and knowledge of laws between oncologists and cardiologists who prescribe opiates.

Design: Surveys regarding screening practices and knowledge of opioid prescribing laws were distributed in March 2017 to oncology and congestive heart failure (CHF) clinicians at the University of Virginia. Chi-square and Wilcoxon rank sum tests were used.

Results: Forty-six of 129 (35.6%) oncology providers and 7 of 14 (50%) CHF providers reported prescribing opiates in their clinic with usable survey results. The majority of oncology (65.22%) and cardiology (85.71%) providers report screening for substance abuse “when indicated” ($p=0.053$). Only 19.6% of oncologists reported always using the prescription monitoring program (PMP), while 71.43% of cardiologists reported using it always ($p=0.014$). Of the oncology providers, 66.67% report never using the urine drug screen (UDS), while 86.7% of cardiologists reported using it “when indicated” ($p=0.0086$). Up to 34.78% of the oncologists and 57.14% of the cardiologists reported of never screening the family members for misuse ($p=0.317$). Knowledge of laws was similar between groups, with 14.29% of cardiology and 17.39% of oncology providers reporting no knowledge of opioid prescribing laws ($p=0.2869$).

Conclusions: Routine screening for substance misuse risk was uncommon for both groups, but cardiology providers were more likely to use the PMP or UDS. Knowledge gaps regarding Virginia laws were noted in both groups. Improved education regarding best practices and laws, as well as programs to promote screening, is needed for all providers.

Keywords: cardiology; misuse; oncology; opioid; screening

Introduction

IN 2015, there were 33,091 deaths in the United States due to opioid-related drug overdoses, and opioid overdoses have quadrupled since 1999.¹ In 2016, 11.5 million people aged 12 or older misused prescription pain medications within the last year (4.3% of this age group), and an estimated 1.8 million had a prescription pain reliever use disorder. The most common reason for misuse was to relieve physical pain, reported in 62.3% of misusers.²

In response to this crisis, there have been increasing efforts to regulate opioid prescribing at the state and national level. These regulations generally include mandating the use of

prescription drug monitoring programs, screening tools, and urine drug screens (UDSs) for at-risk populations. Almost all of them are focused on patients with chronic nonmalignant pain and actively exclude the cancer population from current laws. Pain, however, is one of the most common symptoms associated with cancer,³ and the use of prescription opioids is the foundation of treatment for malignant pain.^{4,5} Cancer patients are not exempt from opioid misuse and diversion behaviors, and this has been shown in prior studies.^{6–8}

This study aims to show the differences in screening habits and knowledge of current laws and regulations between two university-based specialty prescriber groups—one that treats malignant pain and one that treats nonmalignant pain.

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Materials and Methods

We developed a survey to assess screening practices and knowledge of current laws for substance abuse and diversion in patients and their family members in an adult heart failure cardiology clinic as well as an adult oncology clinic (Appendix A1). These populations have relevance to the palliative care clinician given the life limiting nature of their diagnoses. At the University of Virginia, each of these clinics has imbedded palliative care presence.

The survey was designed and adapted with permission from a study by Blackhall et al.⁹ Institutional Review Board (IRB) approval was obtained from the IRB for Behavioral Sciences, University of Virginia. Surveys were sent via SurveyMonkey to all physicians, nurse practitioners, physician assistants, and registered nurses associated with the University of Virginia Emily Couric Clinical Cancer Center clinics and Adult Heart Failure and Transplant clinic in March 2017. All physicians, nurse practitioners, and physician assistants surveyed have opioid prescribing privileges in their respective clinics. Two separate follow-up e-mail reminders were sent at 5- and 10-day intervals to those who had not yet completed the survey.

The survey's initial question identified whether opioids were prescribed within the providers' clinic. If respondents answered "no," they were instructed not to continue participating in the survey. We then aimed to identify how often staff members screened for substance abuse or a history of drug diversion in either patients or their family/caregivers, including the use of urine drug tests or the Virginia Prescription Monitoring Program (PMP). We further ascertained whether providers could identify current legislation regarding prescription opioids, if staff received any mandatory training regarding substance abuse or prescription drug diversion, and if providers felt that substance abuse and/or prescription drug diversion is a problem in their clinic. Questions pertaining to screening use or frequency were answered "never," "when indicated/when provider feels it is appropriate," or "routinely, all are screened." Those questions addressing the particular Virginia laws allowed respondents to choose one of two correct statements derived directly from the legislation, "all of the above," "none of the above," or "I don't know the current laws." Respondents answered "yes" or "no" in response to whether staff members receive any mandatory training related to substance abuse or diversion, and via Likert scale ("strongly

agree," "somewhat agree," "neither agree nor disagree," "somewhat disagree," and "strongly disagree") to describe whether they felt that prescription drug abuse and/or diversion was a problem in their clinic.

At the time of this survey, the Commonwealth of Virginia mandated that every provider assess patients' risk for addiction and substance abuse, as well as document personal and family history of addiction, substance abuse, and diversion. Prescribers were required to obtain a UDS at initiation of opioid treatment, every three months for the first year, and at least every six months thereafter for the duration of treatment. The PMP was to be reviewed at least every three months while prescribing opioids. Written opioid contracts were also mandated. The aforementioned provisions were not required, however, if the opioids were prescribed to a patient receiving hospice or palliative care.¹⁰

Statistical analysis

To analyze the survey, we looked at responses stratified by oncology versus cardiology providers. We used chi-square tests for categorical variables and Wilcoxon rank sum tests for continuous variables. For all tests, differences were considered statistically significant at $p < 0.05$. Analyses were performed using SAS version 9.4 (SAS Institute, Inc., Cary, NC).

Results

An invitation to participate in the survey was sent to 129 physicians, nurse practitioners, physician assistants, and registered nurses associated with the University of Virginia Emily Couric Clinical Cancer Center clinics (oncology), and 14 providers of the same disciplines associated with the University of Virginia Heart Failure and Transplant clinic (cardiology). These teams were chosen due to their regular contact with patients facing serious illness with a high likelihood of symptom burden, including pain.

Sixty-two of the 129 oncology providers responded, 5 indicated that their clinic did not prescribe opiates, while 11 were omitted because the respondent did not complete the survey, leaving 46 responses with completed surveys (35.6%). Of the 14 cardiology providers contacted, we received 11 responses; 3 providers indicated that opioids were

TABLE 1. QUESTIONS ADDRESSING SCREENING FOR OPIOID ABUSE AND DIVERSION IN PATIENTS

Question	Response	Cardiology (%)	Oncology (%)	p
How often does your staff screen for substance abuse in patients?	Never	0	6.5	0.5269
	When indicated	85.7	65.2	
	Routinely	14.3	28.3	
How often does your staff screen for diversion history in patients?	Never	16.7	15.6	0.9696
	When indicated	66.7	71.1	
	Routinely	16.7	13.3	
Do your patients routinely undergo UDS?	Never	14.3	66.7	0.0086
	When indicated	85.7	33.3	
	All patients	0	0	
Do you or someone in your clinic use the Virginia PMP?	Never	0	13.0	0.0138
	When indicated	28.6	67.4	
	Always	71.4	19.6	

PMP, prescription monitoring program; UDS, urine drug screen.

TABLE 2. QUESTIONS ADDRESSING SCREENING FOR OPIOID ABUSE AND DIVERSION IN FAMILY AND/OR CAREGIVERS

Question	Response	Cardiology (%)	Oncology (%)	p
How often does your staff screen for substance abuse in family/caregivers?	Never	57.1	34.8	0.3170
	When indicated	28.6	58.7	
	Routinely	14.3	6.5	
How often does your staff screen for a history of prescription drug diversion in family/caregivers?	Never	28.6	43.5	0.5942
	When indicated	71.4	52.2	
	Routinely	0	4.4	

not prescribed, and 1 survey was omitted due to incomple- tion, leaving 7 responses total (50%).

Screening patients (questions 2, 4, 6, 7)

Only one-third (28.3%) of oncology providers whose clinics prescribe opiates routinely screen for substance abuse in patients, and 6.5% report never screening for substance abuse in patients at all (Table 1). Sixty-seven percent (66.7%) of oncology respondents report that they never use UDSs and 13.0% say they never check the Virginia PMP. A majority of oncology providers report screening for abuse (65.2%), di- version (71.1%), and use the PMP (67.4%) only “when indicated” or when the provider feels it is appropriate.

Seventy-three percent (72.7%) of cardiology providers re- ported prescribing opioids in their clinic. In contrast to the oncology group, there were no cardiology providers who never screen patients for abuse or never use the PMP. However, similar to oncologists, most cardiology providers (85.71%) report screening patients “when indicated.” Of all, 71.4% of cardiology providers reported using the PMP routinely for every patient, while most oncologists used it when indicated ($p=0.0138$). Most reported using the UDS “when indicated” or when the provider felt it appropriate, in contrast to the oncology group where most report never using it ($p=0.0086$).

Screening family/caregivers (questions 3, 5)

Screening for concerning behaviors in family members of patients was infrequent in both groups (Table 2). Over half of all cardiology providers (57.4%) and more than one-third of oncology providers (34.8%) reported never screening family/ caregivers for substance abuse behaviors ($p=0.3170$). Sim- ilarly, close to one-third of cardiology providers (28.6%) and almost half of oncology providers (43.5%) reported never screening for diversion in family members or care- givers; the majority reported completing this only “when indicated” or the provider feels it necessary ($p=0.5942$).

Feelings toward drug abuse and diversion, knowledge of current laws, and frequency of mandatory training (questions 8, 9, 10)

On average, there was no difference between cardiology providers and oncology providers in the perception that

substance abuse is a problem in their respective clinics ($p=0.0765$, with both groups tending to be in the neither agree nor disagree range on a Likert scale (Table 3). Knowledge of laws was similar between groups, with 14.3% of cardiology and 17.4% of oncology providers reporting no knowledge of opioid prescribing laws ($p=0.84$). However, only 34.8% of oncology providers were able to identify current laws correctly. Despite significant numbers report- ing a lack of knowledge, 71% of cardiology and 61% of cancer providers reported no mandatory training in this area ($p=0.5913$).

Discussion

At our institution, almost all oncologists prescribe opioid medications for their patients. Despite their familiarity with opioid prescribing, these clinicians were less likely than car- diologists to screen for substance abuse and diversion, and less likely to use the PMP or UDS. Our data are consistent with other studies showing that UDS are used infrequently in cancer clinics.^{6,11} Both UDS¹² and PMP¹³ have been shown to be effective at mitigating trends toward rising opioid misuse and abuse. In addition, a recent study highlighted the effective application of UDS in cancer patients, indicating that 85% of those at high risk for opioid misuse had either a positive or inappropriately negative UDS.¹⁴ Another study showed that UDS can be useful in patients with serious illness.¹⁵

One explanation for this difference in practice between on- cology and cardiology providers is that the heart failure patient population falls into the category of nonmalignant pain, at which current laws and regulations for opiate prescribing are directed. However, after the completion of our data collection, the Na- tional Comprehensive Cancer Network published clinical prac- tice guidelines for adult cancer pain.¹⁶ They recommend including routine assessment of risk factors for aberrant use of pain medications at every initial patient evaluation with the use of screening tools such as the Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R) and Opioid Risk Tool (ORT), monitor for aberrant drug-taking behaviors, or evidence of diversion throughout the relationship with the pa- tient, and to periodically review prescription drug monitoring program databases. While this is a pertinent step forward to protect patients with cancer, there must be laws put into effect that follow these important guidelines.

TABLE 3. KNOWLEDGE OF VIRGINIA LAWS SURROUNDING OPIOID PRESCRIBING (QUESTION 8)

Question	Response	Cardiology (%)	Oncology (%)	p
What are the Virginia laws surrounding the use of the Virginia PMP?	Incorrect answer or did not know	28.6	65.2	0.0765
	Correct answer	71.4	34.8	

Our results indicate that most providers rely on “feeling it is appropriate” to screen, but this practice is not well defined. Usually, if a provider feels it necessary to screen a patient or family member for abuse behavior or diversion, a suspicious incident has already taken place, and abuse or diversion events have likely already occurred. A universal approach to identifying patients with abuse risk and aberrant behaviors has been shown effective in nonmalignant chronic pain, and many have postulated that this is also effective in those with serious illness and chronic pain.⁸ We agree that those treating malignant pain should consistently screen every patient at his or her initial visit to improve the safety of patients and their family members.

According to the most recent data from the National Survey on Drug Use and Health (NSDUH) published in 2017, more than half (53%) of opioid misusers obtained their pain medications from a friend or relative; specifically, 40.4% obtained them from a friend or relative for free, 8.9% bought them from a friend or relative, and 3.7% took them from a friend or relative without asking.² Most commonly, the friend or relative of the misuser obtained their medications from one health care provider.¹⁷ In addition, the next largest group of misusers (37.5%) obtained pain medications via prescription from one health care provider, and only 6% of misusers reported buying pain relievers from a drug dealer.²

Cancer patients may have problems with substance abuse and may have friends or family members prone to misuse. At our institution, ~45% of all opioids stronger than tramadol prescribed for more than two weeks were prescribed in the cancer center (unpublished data). Failure to institute safety measures for the use of opioids in this patient population may contribute to the opioid epidemic in this country.

While there are no existing statewide regulations surrounding opiate prescribing in patients with cancer or who are at the end of life, potential guidelines have been described.^{6,8,14,16,18–20} We advocate for initiation of these practices in oncology clinics as well as supportive care and palliative care clinics across the country.

Nothing discussed in this article should be construed to suggest that oncologists or palliative care physicians should not prescribe opioids to patients with cancer-related pain. In this setting, appropriate use of opioids has been shown to reduce pain and improve quality of life, and failure to address cancer-related pain is and has been an important public health issue. However, if clinicians providing care for cancer patients do not develop and implement strategies for addressing substance abuse in the cancer population, we may find ourselves saddled with regulations not appropriate for this setting.

There are multiple limitations to our study. First, the cardiology group has a low number of participants, and therefore may not be generalized to the greater population. Heart failure specialist groups are usually a small subset of university-based cardiology departments, however, so our results are suggestive of trends in this expert faction. Second, our response rate in the oncology group is low at 35.6%. In addition, respondents may not always provide accurate answers and may overestimate the screening they provide. However, this means that the data we collected showing a low level of universal screening is likely an upper limit; the already low level of reported screening may be even lower than reported.

Those who treat chronic nonmalignant pain in patients with serious illness, who are also under the scrutiny of laws and regulations surrounding opioid prescribing, are more

likely to understand the regulations and adhere to them, improving the safety of their patients. It is evident that we need more attention to the safe use of opioids in patients with cancer and others who are facing the end of life.

Author Disclosure Statement

No competing financial interests exist.

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APPENDIX A1. OPIATE PRESCRIBING SURVEY

- | | |
|--|---|
| <p>1. Does your clinic prescribe opiates to patients?
 Yes
 No—no need to continue this survey</p> <p>2. How often does your staff screen for substance abuse (including alcohol) in patients?
 Routinely, all are screened
 When indicated/when provider feels it is appropriate
 Never</p> <p>3. How often does your staff screen for substance abuse (including alcohol) in family/caregivers?
 Routinely, all are screened
 When indicated/when provider feels it is appropriate
 Never</p> <p>4. How often does your staff screen for a history of prescription drug diversion in patients?
 Routinely, all are screened
 When indicated/when provider feels it is appropriate
 Never</p> <p>5. How often does your staff screen for a history of prescription drug diversion in family/caregivers?
 Routinely, all are screened
 When indicated/when provider feels it is appropriate
 Never</p> <p>6. Do your patients routinely undergo urine drug tests?
 Yes, all patients undergo routine urine drug tests
 When indicated/when provider feels it is appropriate
 No</p> <p>7. Do you or someone in your clinic use the Virginia Prescription Monitoring Program (PMP)?</p> | <p>Yes, PMP is used for all patients
 When indicated/when provider feels it is appropriate
 No</p> <p>8. What are the Virginia laws surrounding use of the Virginia PMP?
 Any prescriber who is licensed in the Commonwealth to treat human patients and is authorized to prescribe controlled substances should be registered with the Virginia PMP.
 At the time of initiating a new course of treatment to a human patient that includes the prescribing of opioids anticipated at the onset of treatment to last more than 14 consecutive days, request information from the Director for the purpose of determining what, if any, other controlled substances are currently prescribed to the patient.
 All of the above
 None of the above
 I don't know the current laws</p> <p>9. Does your staff receive any mandatory training regarding issues related to substance abuse and/or prescription drug diversion?
 Yes
 No</p> <p>10. Substance abuse and/or prescription drug diversion is a problem in our clinic.
 Strongly agree
 Somewhat agree
 Neither agree nor disagree
 Somewhat disagree
 Strongly disagree</p> |
|--|---|