Cancer Pain Management and the Opioid Crisis in America: How to Preserve Hard-Earned Gains in Improving the Quality of Cancer Pain Management

Judith A. Paice, PhD, RN

Cancer pain remains a feared consequence of the disease and its treatment. Although prevalent, cancer pain can usually be managed through the skillful application of pharmacologic and nonpharmacologic interventions. Unfortunately, access to these therapies has been hampered by interventions designed to contain another serious public health problem: the opioid misuse epidemic. This epidemic and the unintended consequences of efforts to control this outbreak are leading to significant barriers to the provision of cancer pain relief. Oncologists and other professionals treating those with cancer pain will require new knowledge and tools to provide safe and effective pain control while preventing additional cases of substance use disorders (SUDs), helping patients in recovery to maintain sobriety, and guiding those not yet in recovery to seek treatment. How do these 2 serious epidemics intersect and affect oncology practice? First, oncology professionals will need to adopt practices to prevent SUDs by assessing risk and providing safe pain care. Second, oncology practices are likely to see an increased number of patients with a current or past SUD, including opioid misuse. Few guidelines exist for the direct management of pain when opioids may be indicated in these individuals. Third, modified prescribing practices along with the education of patients and families are warranted to prevent the exposure of these medications to unintended persons. Finally, advocacy on behalf of those with cancer pain is imperative to avoid losing access to essential therapies, including opioids, for those who might benefit. Cancer 2018;124:2491-7. © 2018 American Cancer Society.

KEYWORDS: access, advocacy, cancer pain, opioid epidemic, opioids, pain management, substance misuse.

INTRODUCTION

Despite recent advances in management, cancer pain remains a common symptom. The results of a large population-based study suggested that more than half of people with cancer had experienced pain in the previous week, with 44% reporting moderate to severe pain. The prevalence of moderate to severe pain in those receiving curative-intent therapy ranged from 43% to 57% and was as high as 75% in those with advanced disease for whom therapy was no longer feasible. In that study, analgesic management was reported to be inadequate in 42% of the subjects. A systematic review of the literature revealed pain prevalence rates of 39.3% after curative treatment, 55.0% during anticancer treatment, and 66.4% for patients with metastatic disease. The actual number of people with cancer living with pain is estimated to be increasing because improved diagnosis and management have resulted in more than 14 million people surviving cancer in the United States. The consequences of unrelieved, persistent pain were described in another large survey, in which 69% of patients described pain-related difficulties with daily activities. Unrelieved cancer pain has also been associated with emotional distress and impaired quality of life.

The underlying reasons for unrelieved cancer pain are varied, complex, and likely increasing. A large study of 4707 cancer survivors revealed that two-thirds reported at least 1 barrier to cancer pain management, with the most vulnerable groups—those who were nonwhite, less educated, older, or having more comorbidities—being most adversely affected. Numerous studies have examined specific barriers expressed by patients and family/caregivers regarding pain and pain management, with fears of addiction consistently being cited as a substantial concern. Physician barriers to cancer pain management include inadequate assessments and a reluctance to administer and prescribe opioids. A recent study revealed that oncologists reduced the dose of opioids prescribed to patients from a mean morphine-equivalent daily dose of 78 mg/d in 2010 to 40 mg/d in 2015. System barriers include reduced access to and payment for essential treatment. Categorizing the barriers and determining those common in an individual practice can assist oncology clinicians in developing strategies to address these obstacles (Fig. 1).
An implicit bias may play an additional role in the undertreatment of cancer pain. In a prospective study of outpatients being treated for breast, prostate, colon/rectum, or lung cancers, minority patients were twice as likely to be undertreated in comparison with non-Hispanic white patients. Barriers to pain relief are reported more commonly for nonwhite patients. Barrier to pain relief are reported more commonly for nonwhite patients. Studies also suggest that people who are socioeconomically disadvantaged may not be fully believed when they are reporting pain, and they may receive less than adequate pain control. The underlying causes of these disparities include interactions between the patient and the clinician along with environmental factors. For example, pharmacies in communities that serve minority patients have been shown to be less likely to carry opioids. Solutions require an awareness of this risk for inadequate care along with interdisciplinary, system-wide interventions that expose and address these disparities.

**OPIOID MISUSE EPIDEMIC**

A separate but intersecting serious public health concern is the rising prevalence of the misuse of opioids and resultant opioid-related deaths. The 2015 National Survey on Drug Use and Health revealed that 91.8 million US adults (37.8%) used prescription opioids, 11.5 million (4.7%) misused these drugs, and 1.9 million (0.8%) had a
substance use disorder (SUD). These respondents reported that their primary motivation for misuse was to relieve physical pain (63.4%). Those at greatest risk for misuse were individuals who were socioeconomically disadvantaged (eg, uninsured, unemployed, or low-income) or had behavioral health problems. Among the respondents who misused these drugs, 59.9% reported using opioids without a prescription, and 40.8% obtained prescription opioids for free from friends or relatives. In another study of people seeking treatment for opioid use disorder, investigators categorized subjects by whether they had obtained opioids illicitly to get high or by prescription from a physician. Although the group that did not have a prescription tended to begin opioid abuse at an earlier age, other characteristics were similar between the 2 groups. The overwhelming majority of both groups reported using opioids to self-medicate psychological problems or reduce stress. The authors concluded that the source of the opioid—illicit or by prescription—was irrelevant to the progression to an SUD.

The repercussion of this rise in substance misuse is overdose and death. In the United States, drug overdoses during 2015 accounted for 52,404 US deaths, including 33,091 (63.1%) that involved an opioid. Although this epidemic may have originated with prescription opioids and the prescribing of opioids has now declined after a peak in 2010, deaths are currently more often associated with heroin and illicitly manufactured fentanyl. As prescription opioids have become less available, heroin has become a more frequent first agent to regularly get high, with imprecise dosing and limited tolerance in newer users contributing to these fatalities. Other psychoactive substances, including benzodiazepines, are often implicated in these deaths.

INTERSECTION BETWEEN CANCER PAIN AND THE OPIOID ABUSE EPIDEMIC

How do these 2 serious epidemics intersect, and what is the effect on oncology practice? The precise prevalence of SUDs in cancer patients is unknown. A comprehensive literature review conducted more than 10 years ago found that the prevalence of addiction in people with cancer ranged from 0% to 7.7% and depended on the population and the criteria used. Although carefully conducted, this review likely underrepresents the changing environment of misuse that we are currently witnessing. For example, approximately 9% of Americans meet the diagnostic criteria for an SUD (Substance Abuse and Mental Health Services Administration, 2015); thus, it is likely that oncology practices will provide care for some of these individuals, and in fact, cancer may place some patients at particular risk for an SUD. Cancer patients have a higher rate of psychological distress than the general population, and this can be a substantial risk factor for an SUD. In a study of cancer patients screened with specific scales to assess for the risk of an SUD, 29% were found to be at high risk; this was particularly true for younger individuals and those with high levels of anxiety/depression. In a retrospective study of patients with advanced cancer, those with a current or former smoking history had a higher risk of illicit drug use, and those who were currently smoking were more likely to report a higher pain intensity. A prospective study of patients with advanced cancer found that approximately 18% met the criteria for chemical coping, which places the patient at risk for using an opioid in an unprescribed manner to cope with stressors. Thus, it is likely that people with cancer may have similar or, in some cases, higher risks of an SUD than the general population.

STRATEGIES FOR OPTIMAL PAIN MANAGEMENT USING OPIOIDS IN THE TIME OF AN EPIDEMIC

How might clinicians address the use of opioids for the treatment of cancer pain during an opioid epidemic while overcoming barriers to relief (Fig. 2)? First, oncology professionals will need to adopt practices to prevent SUDs by assessing risk and providing pain care accordingly. Second, oncology practices are likely to see an increased number of patients with a current or past SUD, including opioid use disorder. Few guidelines exist for the direct management of pain when opioids may be indicated in these individuals, yet universal precautions support adherence. Third, modified prescribing practices along with the education of patients and families are warranted to prevent the exposure of these medications to unintended persons or pets and to limit the environmental impact. Finally, advocacy is crucial because policies, guidelines, and regulations are being introduced to limit the opioid epidemic yet have negative consequences for those with cancer.

Screening and Assessment

During the time of an opioid epidemic, the imperative is to prevent new cases of addiction and relapse for those with a past history of SUDs through the identification of those at risk. A careful assessment of pain as well as risk factors for SUDs will inform clinical judgment regarding the safe use of opioids. Risk factors for SUDs include past or current use of substances, a family history of alcohol or
drug abuse as well as a history of sexual abuse, psychiatric disorders, and posttraumatic stress disorder.\textsuperscript{28,35,40,41}

Once the assessments of pain and risk have been conducted, a treatment plan can be developed that is based on whether patients are at low, moderate, or high risk for misuse.\textsuperscript{41,42}

**Universal Precautions**

Ongoing, safe pain management requires the adoption of universal precautions. Accessing prescription drug monitoring program data before prescribing drugs provides essential information. The drugs and doses prescribed, the amounts dispensed, the method of payment, the pharmacy used, and the specific prescribers are noted. This information clarifies whether patients are obtaining opioids or other controlled substances from multiple prescribers and can also be helpful when patients do not recall the dose, last fill date, or other vital data needed to guide future prescribing. Use of these programs has been shown to reduce nonmedical use of opioids and is generally considered to be an essential component of best practices.\textsuperscript{27,43-45}

Urine drug testing is conducted randomly to determine the presence of other medications that have not been prescribed or substances of abuse.\textsuperscript{46} This is an additional tool for monitoring adherence to the analgesic regimen; however, evaluating the results of urine toxicology can be complex because of false-positives or false-negatives.\textsuperscript{47}
Prescribers must be aware of the limitations of the types of analyses available within their facility along with the reliability and sensitivity of these tests.

Other aspects of universal precautions include patient-provider agreements that describe the roles and responsibilities of both groups with a goal of reducing risks by improving education. More data are needed regarding the optimal implementation of these agreements in oncology settings. Some argue that they provide a clear outline of responsibilities for both providers and patients, whereas others are concerned that it merely provides clinicians an easy mechanism for discharging a patient who is not adherent. Pill counts are also used to ensure adherence to the medication regimen, more frequently in noncancer pain settings. Again, more research is warranted to understand which of the components of universal precautions are most effective in advancing safe and effective pain care in an oncology setting.

**Safe Prescribing, Use, Storage, and Disposal of Opioids**

The public, including our patients, are often unaware of the connection between the opioid epidemic and their own safe storage of medications. One study of cancer patients seen in the emergency department found that by self-report, 36% admitted to storing their opioids in plain sight, 53% hid the medications but not in a locked box or cabinet, and only 15% reported that they locked up the opioids. Most in this study were unaware of proper disposal methods. A prospective study incorporating the distribution of educational materials regarding safe use, storage, and disposal when opioids were prescribed to people with cancer led to improved self-reports of these practices. These practices will lead to the appropriate use of the medications with less risk that the medications will be accidentally taken by children or pets. Safe storage will also prevent diversion and ensure a safer community. Also, proper disposal will limit environmental exposure to these substances, which can be inappropriately flushed down the toilet and ultimately reach the water supply.

**Advocacy**

Advocacy to ensure access to cancer pain treatments is essential. There is great tension about developing policies and regulations that might limit the number of opioid-related deaths while preventing the unintended consequences of such legislation, such as reduced access to medications for those with cancer or other serious illnesses. The Drug Enforcement Agency has limited production quotas of opioids during 2017 by 25%. In the first 6 months of 2017, 24 states proposed 59 bills designed to address the opioid abuse epidemic, with the majority of these bills limiting opioid prescriptions to time limits (eg, 3- to 7-day supply) or a maximum dosage (eg, 100 mg oral morphine equivalents/d). Only a few of these bills explicitly exclude cancer. Existing efforts have already reduced access. Once receiving the prescription, patients struggle with finding pharmacies that carry a sufficient supply and with obtaining payment through their insurance carrier. Many prior authorizations are required by third-party payers, and they can delay access to the medication and, in some cases, result in withdrawal from the medication.

Oncology clinicians must advocate for patients by speaking out and sharing the facts regarding the benefits of opioids for those with cancer and other serious illnesses. The American Cancer Society Cancer Action Network, the American Society of Clinical Oncology, the Oncology Nursing Society, and other professional organizations are asserting the need for access through a variety of policy and position statements as well as the education of clinicians, patients, the public, and legislators.

In conclusion, pain remains a feared consequence of cancer and its treatment. Cancer pain can usually be managed through the skillful application of pharmacologic and nonpharmacologic interventions, yet barriers persist to adequate cancer pain control. In fact, some of these obstacles may be increasing because access to opioids and other therapies has been hampered by interventions designed to contain the opioid misuse epidemic. Oncologists and other professionals treating those with cancer pain will require new knowledge and tools to provide safe and effective pain control while preventing additional cases of SUDs, helping patients in recovery to maintain sobriety, and guiding those not yet in recovery to seek treatment. Advocacy on behalf of those with cancer pain is imperative to avoid losing access to essential therapies, including opioids, for those who might benefit.

**FUNDING SUPPORT**

No specific funding was disclosed.

**CONFLICT OF INTEREST DISCLOSURES**

The authors made no disclosures.

**REFERENCES**

2. van den Beuken-van Everdingen MH, Hochstenbach LM, Joosten EA, Tjan-Heijnen VC, Janssen DJ. Update on prevalence of pain in...


