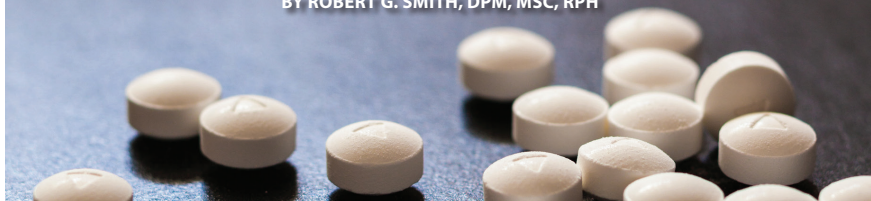


# Refocusing Attention on Opioid Prescribing: Podiatric Implications

It's one of today's hot button issues.

BY ROBERT G. SMITH, DPM, MSC, RPH



## Goals and Objectives

- Recognize the importance of federal strategies centered on opioid prescribing regulations and apply them to practicing podiatry to mitigate harm from opioids.
- Follow an evidence-based protocol for starting patients on opioid analgesic therapy, including safely initiating and titrating opioids.
- Define risk factors for potential misuse, abuse, and diversion of prescribed opioid medications.
- Appreciate and recognize tools to screen for the risk of opioid misuse.

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Following this article, an answer sheet and full set of instructions are provided (pg. 93).—**Editor**

## Introduction

The unpleasant and subjective sensation resulting from a noxious sensory stimulus defines the phenomenon of pain. The podiatric physician is no stranger to the difficulties in achieving optimal pain therapy. Podiatric physicians must develop analgesic regimens to treat patients with acute, chronic, and post-operative pain while appreciating the possibility of opioid analgesic harm.<sup>1</sup> The topic of pain management remains a minor component of the formal

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## The podiatric physician is no stranger to the difficulties in achieving optimal pain therapy.

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education and training of residents and physicians in the United States. Misguided attitudes concerning acute and chronic pain management, in addition to reservations about the legal aspects of pain management, often translate into a “fear of the un-

known” when it comes to narcotic prescriptions.<sup>2</sup>

In an attempt to mitigate the opioid analgesic harm, presently, 38 states require prescribers of opioids to participate in mandated continu-

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ing education centered on mitigating strategies to empower these providers to prescribe opioids while avoiding opioid harm. Each state has specific requirements and delineations which may include podiatric physicians who prescribe opioids.

These findings validated previous assertions that the United States accounts for 4.6% of the world's population, yet it is estimated that the United States consumes 80 percent of the global opioid supply as well as approximately 99% of hydrocodone.<sup>5</sup>

Through alterations in the attitudes of patients and podiatric physi-

period ending in April 2021, an increase of 28.5% from the 78,056 deaths during the same period the year before.<sup>3</sup> Further, 2017 statistics revealed there were still almost 58 opioid prescriptions written for every 100 Americans. More than 17% of Americans had at least one opioid prescription filled, with an average of 3.4 opioid prescriptions dispensed per patient. The average daily amount was more than 45.3 morphine milligram equivalents (MME). Lastly, the average number of days per prescription continues to increase, with an average of 18 days in 2017.<sup>6</sup>

There continues to be a dilemma for the podiatric physician regarding balancing patient treatment with opioids and avoiding adverse effects contributing to the opioid crisis. There are clinical literature reports that link legitimate opioid prescriptions with opioid misuse, abuse, and opioid diversion. This review focuses on the prescribing strategies of opioid analgesics to treat lower-extremity pain.

The selection of an appropriate opioid agent and opioid prescribing strategies are introduced. Then, building on these, opioid prescribing

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### **According to Podiatry Management's annual surveys of oral analgesic prescriptions Norco® accounted for 9.5% of written prescriptions.**

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Opioid prescribing remains high in the United States compared with other countries, despite concerted efforts to educate providers and enforce evidence-based and appropriate prescribing practices.<sup>3</sup> Only one percent of the providers who prescribe opioids account for almost half of all opioid doses prescribed and one-quarter of opioid prescriptions written; this pattern has persisted for a decade.<sup>3</sup>

Podiatric physicians frequently prescribe opioids. Podiatrists have an ethical obligation to prescribe responsibly yet cautiously to diminish the potential for opioid diversion and to help minimize the growth of the current epidemic of opioid abuse. A review of the available *Podiatry Management* annual surveys between 2009 to 2020 with a total of 8,693 respondents reported data on podiatric physicians' prescribing habits.<sup>4</sup> Collectively, respondents admitted to prescribing an average of 5.4 analgesic prescriptions weekly. The average mean percentage values over time of oral analgesic prescriptions prescribed were calculated to be: Norco® (9.5%), Percocet® (13%), Hydrocodone (7.9%), Ultram® (4.3%), Tylenol#3® (6.4%), Vicodin® (17.3%), Lortab® (5.7%). Notable differences during the period from 2009 to 2021 include (1) a decrease in all opioid analgesic prescriptions over time, and (2) hydrocodone-containing opioid analgesics are utilized most frequently, followed by Percocet® and Tylenol #3®.<sup>4</sup>

cians, the podiatrist can manage the pain of the patient while minimizing diversion potential through careful procedural techniques, non-steroidal anti-inflammatory drug use, and limited opioid prescriptions of appropriate quantities when deemed necessary. In order to manage their patients' pain after invasive podiatric procedures, every practicing podiatrist must prescribe medication on occasion.

Many of these analgesic medications are associated with a high likelihood of physical dependence, as well

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### **According to the CDC's National Center for Health Statistics there were an estimated 100,306 drug overdose deaths in the United States during 12-month period ending in April 2021.**

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as a relatively high risk of addiction. It is critical that podiatric physicians understand the underlying issues of how these medications work and how they can be abused, as well as exercise sound clinical judgment in identifying patients who might possibly have or might develop a physical or psychological dependence on these drugs.

Provisional data from CDC's National Center for Health Statistics indicate that there were an estimated 100,306 drug overdose deaths in the United States during the 12-month

strategy monitoring tools and strategies are presented for consideration to recognize and reduce the risk of aberrant opioid misuse and abuse.

#### **Prescribing Opioid Strategies in Podiatry**

Analgesic opioid therapy has been the cornerstone of the pharmacologic management of acute and chronic pain. Ideally, opioid analgesics are prescribed by balancing the beneficial and adverse effects. Although often overlooked as a source

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of opioid medications, podiatric and orthopedic surgical interventions are often painful during the post-operative period; therefore, these specialists are frequent opioid prescribers. Ringwalt, et al. accentuates this assertion by their findings centered on medical specialty opioid prescribing for non-chronic, non-cancer pain.<sup>7</sup> They reviewed 1.28 million filled prescriptions for an opioid analgesic over a one-year time frame.<sup>7</sup> They concluded that general practitioner/family medicine specialists and internists were least likely to prescribe opioids, while orthopedists were most likely to prescribe opioids.<sup>7</sup> While there is currently no direct evidence, a contribution to non-medical opioid misuse is presumed to be a result of normal prescribing for orthopedic surgical interventions.<sup>7</sup>

Opioid analgesics are classified as agonist or antagonist drugs depending on their ability to bind or block opioid receptors.<sup>1,8</sup> Each opioid

**Opioid Selection**

Opioid selection is based on patient-specific factors, such as age and renal function. When selecting an opioid, immediate-release formulations are safer than extended-release or long-acting opioids, regardless of whether the drug is used for

acute or long-term treatment. In the setting of acute pain, some podiatric clinicians become competent in the prescribing and use a few opioid analgesics. Although no opioid seems to be superior in relieving pain, certain products are clearly inferior because of increased risks of toxic effects.<sup>1,9</sup>

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In some circumstances, pain control is inadequate despite dosage increases. MacPherson<sup>1,9</sup> reviewed the concept of opioid rotation. This method is characterized by the re-

placement of the current opioid regimen with another. Analgesic equivalence is the central theme when considering opioid substitution.<sup>1,10</sup>

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**HTX-011 is a dual-acting,  
local anesthetic containing bupivacaine,  
and low-dose meloxicam  
in an extended-release polymer.**

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produces a wide spectrum of pharmacologic effects, including analgesia, dysphoria, euphoria, somnolence, respiratory depression, diminished gastrointestinal motility, altered circulatory dynamics, urinary retention, histamine release, and physical dependence.<sup>1</sup>

The podiatric physician must remember that comfort is the ultimate goal when using any medication, including opioids, to manage pain. Before podiatric clinicians consider an opioid analgesic, they need to ensure that a complete psychosocial and physical evaluation of the patient has been performed.<sup>1</sup> Opioid therapy should be prescribed appropriately to avoid under-treating patients with painful symptoms.

placement of the current opioid regimen with another. Analgesic equivalence is the central theme when considering opioid substitution.<sup>1,10</sup>

Mercadante<sup>11</sup> defines the concept of opioid rotation as the substitution of another opioid for a previous one to obtain a more favorable response. Two types of opioid rotation strategies have been used: a change in opioid product or a change in the route of administration. Morphine-milligram-equivalent tables have been developed, and their purpose is to assist clinicians in determining equianalgesic doses of various opioid agents when changing therapy. A table of opioid equianalgesic doses is presented in Figure 1.

The last key to the rotation strat-

egy of opioid analgesic therapy that the podiatric physician must consider is the route of administration. Various methods of drug delivery have been used to treat patients in pain. Selecting the route of administration must be precise and tailored to the patient's needs and tolerability.<sup>1</sup>

The Institute for Clinical Systems Improvement published an acute pain assessment and appropriate opioid prescribing protocol in 2014 that still held true in 2022.<sup>12</sup> The podiatric physician should find the following clinical points essential when prescribing opioids for acute pain.<sup>12</sup> Providers should avoid prescribing more than three days or 20 doses to a patient.<sup>12</sup> Select the lowest dose and the shortest acting opioid product.<sup>12</sup> These are salient points that are echoed throughout the foot and ankle specialist clinical literature.

Consider that tramadol is an atypical opioid and should be managed appropriately.<sup>12</sup> Never prescribe a long-acting/extended release opioid for acute pain. Exercise caution when prescribing opioids to the elderly patient.<sup>12</sup> Schedule the patient to follow up within three to five days.<sup>12</sup> Share decision-making and review responsible use, driving, work, storage, and disposal with the patient.<sup>12</sup> According to Dowell, et al. treatment for three or fewer days is often sufficient for most patients with acute pain and more than seven days is rarely required.<sup>13</sup>

Published clinical-based evidence has described the effects of employing local anesthetic products to reduce post-operative pain and reduce the need for opioid analgesics.<sup>14-16</sup> Kim, et al. investigated 30 consecutive patients who underwent bilateral proximal osteotomies for the correction of hallux valgus deformities.<sup>14</sup> Each patient acted as their own control as one foot received local infiltration of a test solution made with

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ropivacaine, morphine, ketorolac, and epinephrine while the other foot received the same amount of normal saline.<sup>14</sup>

A visual pain analogue scale was used to assess at four hours after the

surgical intervention and throughout the night of the first post-operative day.<sup>14</sup> The difference in visual analogue scale values between the two sides was most notable at eight hours after the operation and then gradually decreased through the first and second post-operative day.<sup>14</sup> These in-

vestigators concluded that the local multi-drug cocktail was easy to perform, safe, and effective in reducing pain and enhancing patient satisfaction after hallux valgus surgery.<sup>14</sup>

Luiten, et al. investigated their hypothesis that a continuous peripheral nerve block would reduce pain scores more effectively than systemic analgesics, improve recovery, and lead to reduced hospital length of stay.<sup>15</sup> They retrospectively analyzed three years of data centered on patients who underwent open reduction and internal fixation of talar or calcaneal fractures who either received intravenous opioid patient-controlled analgesics or continuous peripheral nerve block.<sup>15</sup> Their findings reveal that the patient-controlled analgesic group required about 30-fold more opioids compared to the continuous peripheral nerve block group on the first post-operative day.<sup>15</sup>

Gadek and Liszka evaluated the influence of local anesthetic infiltration before hallux valgus surgery on post-operative pain and the need for analgesics.<sup>16</sup> Their study group consisted of 134 patients who underwent a chevron or mini-invasive Mitchell-Kramer osteotomy of the first distal metatarsal.<sup>16</sup> Each patient was randomized to receive either 7 mL of local anesthetic (4 mL of 0.25% bupivacaine and 3 mL of 2% lidocaine) or normal saline 15 minutes prior to skin incision.<sup>16</sup> Each patient's level of pain was assessed by the visual analogue scale at hours 2, 4, 8, 12, 16, 24, and 72 hours after release of the tourniquet.<sup>16</sup> They concluded that pre-emptive local anesthetic infiltration significantly decreased pain during the first 24 hours after hallux valgus surgery.<sup>16</sup>

**HTX-011**

Pollack et al, presents relative data centered on HTX-011 as a dual-acting, local anesthetic containing bupivacaine, and low-dose meloxicam in an extended-release polymer to foster opioid-free recovery from bunionectomy.<sup>17</sup> Following regional anesthesia administered as a lidocaine block, patients underwent uni-

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**FIGURE 1**  
**Morphine Milligram Equivalents (MMEs) Conversion Factors**

OPIOID PRODUCTS	CONVERSION FACTOR
Morphine	1
Codeine	0.15
Hydromorphone	4
Methadone	
1-20 mg	4
21-40 mg	8
41-60 mg	10
61-80 mg	12
Levorphanol	11
Oxymorphone	3
Hydrocodone	1
Oxycodone	1.5
Buprenorphine, transdermal patch (MCG/HR)	12.6
Buprenorphine, tablet or film	30
Buprenorphine, film (MCG)	0.03
Butorphanol	7
Fentanyl, transdermal patch (MCG/HR)	7.2
Fentanyl, buccal/SL tablet or lozenge/troche (MCG)	0.13
Fentanyl, film or oral spray (MCG)	0.18
Fentanyl, nasal spray (MCG)	0.16
Pentazocine	0.37
Tapentadol	0.4
Tramadol	0.1

These oral dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.

Adapted from Calculating Total Daily Dose of Opioids For Safer Dosage [www.cdc.gov/drugoverdose/pdf/calculating\\_total\\_daily\\_dose\\_a/pdf](http://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose_a/pdf) Accessed October 14, 2022.

Adapted from <https://www.ohiopmp.gov/Documents/Morphine...> accessed October 14, 2022.

Figure 1: A table of Morphine Milligram Equivalents and conversion factors



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lateral bunionectomy with osteotomy and internal fixation.<sup>17</sup> Prior to closure, HTX-011 (up to 60 mg bupivacaine/1.8 mg meloxicam) was applied without a needle. Patients received scheduled post-operative MMA alternating ibuprofen (600 mg) and acetaminophen (1 g) every 3 hours for 72 hours.<sup>17</sup> These investigators concluded that the use of HTX-011 as the foundation of a multimodal analgesia regimen including scheduled ibuprofen and acetamino-

of reduced access on the well-being of individuals suffering from pain whose access to opioids was curtailed.<sup>18</sup> Drug take-back programs allow people with unused medications to bring them in for proper disposal. These programs can increase awareness of the need for the safe disposal or return of many unused drugs. Access to these programs should be expanded, with states convening public-private partnerships to implement take-back programs year-round rather than the standard occasional take-back event.<sup>18</sup> Strides have

medication for treating opioid overdose, called naloxone, be available, but its high and unpredictable cost impedes its use.<sup>18</sup> Prescribers and pharmacists can help address opioid use disorder and opioid overdose by counseling patients who may be at risk and offering naloxone when an opioid is prescribed or when opioid-related treatment is sought.<sup>16</sup> States can improve access to naloxone and safe injection equipment by implementing laws and policies to remove existing barriers.<sup>18</sup>

Presently every state, DC, and Guam now have working Prescription Drug Monitoring Programs (PDMPs) for monitoring controlled substances that are prescribed by licensed practitioners and dispensed by pharmacies. Although prescription drug monitoring programs have existed for many years, the White House Office of National Drug Control Policy recommended the use of prescription drug monitoring programs to reduce abuse in 2011. Congress passed the National All Schedules Prescription Electronic Reporting Act (NASPER) requiring the Secretary of Health and Human Services (HHS) to award grants to states to establish or improve PDMPs.

Unfortunately, the amount of funding to support this program has been limited, and the plan to fully integrate the prescription drug monitoring programs for the entire country has yet to be realized. Clinicians should review PDMP data, if available, at the start of therapy as well as throughout therapy to help determine if the patient is actually using the opioid as prescribed or if there are any dangerous combinations that put their patients at high risk for overdose.

**Opioid Aberrant Behaviors**

Yorkgitis and Brat recently reported that many opioid prescription medications after surgery go unused, with the potential for diversion and misuse.<sup>19</sup> Further, they assert as surgeons become increasingly aware of their role in opioid misuse, better tools are needed to guide behavior. Based on an extensive review of recent literature, they developed the acronym RIGHTT: Risk for adverse

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**The White House Office of National  
Drug Control Policy recommended the use of  
prescription drug monitoring programs (PDMP)  
to reduce abuse in 2011, today  
all 50 states operate some type of PDMP.**

phen maintained mean post-operative pain scores in the mild range and enabled opioid-free recovery for 77% of bunionectomy patients through the 28-day recovery period.<sup>17</sup>

**National Academies of Sciences and Engineering and Medicine Strategies**

The Health Sciences Policy of the Health and Medicine Division of the National Academies of Sciences, Engineering and Medicine (NASEM) issued a constellation of policies, interventions, and tools related to lawful access to opioids and clinical decision-making can help reduce or contain opioid-related harms while meeting the needs of patients with pain.<sup>18</sup> These strategies include: restricting the lawful supply of opioids; influencing prescribing practices; reducing demand and reducing harm.<sup>18</sup> Further, the board acknowledges that although more research is needed, limited evidence suggests that state and local interventions aimed at reducing the supply of prescription opioids in the community may help curtail access.<sup>18</sup>

Importantly, however, none of these studies investigates the impact

been made at the federal level, state level, and corporate level to empower patients to dispose of unused opioids at local pharmacies, mailing back unused opioid prescriptions with pre-stamped envelopes, and the use of the FDA toilet flushing list.

The Board's recommended changes to provider education and payer policy should be accompanied by a change in patient expectations with respect to the treatment and management of chronic pain to reduce demand. Further, attention is not being paid to educating the general public on the risks and benefits of opioid therapy, or the comparative effectiveness of opioids with non-opioid or non-pharmacologic therapies. Medication-assisted treatment for opioid use disorder is the standard of care, but it is under-used. Evidence-based treatment for opioid use disorder should be expanded by states, and barriers to coverage for these medications should be removed.<sup>18</sup> It is hoped that the Board's recommendations for chronic pain may be translated to better acute pain management.

Further, the Board proposes, in order to reduce harm, that life-saving

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event, Insight (it is important that surgeons recognize the potential for opioid misuse in their patients), Going over pain plan, Halting opioids, Tossing unused opioids and Trouble identification.<sup>19</sup> RIGHTT provides a simple acronym for surgeons to integrate best-practice strategies into their management of post-surgical opioids.<sup>19</sup> Strategies have been developed to decrease the risk of prescribing opioids.<sup>19</sup>

The acronym “**MORPHINE**” to assist podiatric physicians was introduced in 2020 by Smith during opioid prescribing to treat pain.<sup>20-22</sup> Each letter of the MORPHINE acronym stands for an essential principle of opioid stewardship. Clinical-based evidence will be presented to defend the use of the MORPHINE acronym by providing an argument highlighting current ethical prescribing standards and legal regulations in the context of opioid stewardship prin-

ciples aimed at alleviating the widespread opioid crisis as well as allow for prescribing of opioid analgesics within the context of opioid use disorder that podiatric providers face daily.

“**M**” is for multimodal analgesic strategies. “**O**” is for the development of an opioid formulary. “**R**” is for

perspective on post-operative pain regimens is needed for opioid use disorder patients. “**I**” is for use of information technology. “**N**” is for the number of opioid doses. “**E**” is for education for multidisciplinary medical professionals’ patients, and patient caregivers.

Sharma, et al. led an investiga-

**The treatment of acute and chronic pain through opioid therapy involves a risk of possible dependence or abuse of the prescribed substances.**

recognize and reduce risks for opioid harm. “**P**” is for the pharmacokinetics, pharmacodynamics, and pharmacogenomics of opioid analgesic as well as those medications used for medication absence therapy. “**H**” is for help. Seek a pain specialist when

tion to determine the predictability of aberrant behavior to opioids using a comprehensive scoring algorithm incorporating phenotypic and, more uniquely, genotypic risk factors.<sup>23</sup> They did a multicenter observation validation study with 452 American participants diagnosed with opioid use disorder and 1,237 American controls. It led to the development of an algorithm that successfully categorized patients at high and moderate risk of opioid use disorder with 91.8% sensitivity. Regardless of changes in the prevalence of opioid use disorders, the sensitivity of the algorithm remained > 90%. The algorithm correctly stratifies primary care patients into low-, moderate-, and high-risk categories to appropriately identify patients in need of additional guidance, monitoring, or treatment changes.<sup>23</sup>

The treatment of acute and chronic pain through opioid therapy involves a risk of possible dependence or abuse of the prescribed substances. While substance abuse tools assess whether a patient was or is currently involved in alcohol or drug abuse, risk assessment tools measure additional factors involved in a patient’s overall level of risk of developing abuse or addiction. Beyond taking a good medical history via an effective patient interview, there are several risk assessment tools that may be used to further evaluate how likely it is that patients will have difficulty using opi-

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FIGURE 2

**Risk Factors for Prescription Drug Abuse**

Past or present addictions to other substances, including alcohol and tobacco
Family history of substance abuse problems
Lack of knowledge about prescription drugs and their potential harm
Age group 16 to 45; younger ages, especially teens or early 20s have a greater risk
Exposure to peer pressure or a social environment where there is drug use
Easier access to prescription drugs, such as having prescription medications in the home medicine cabinet
Certain pre-existing psychiatric conditions
Bipolar Affective Disorder
Attention Deficit Affective Disorder
Generalize Anxiety Disorder
Major Depressive Disorder
Obsessive Compulsive Disorder
Personality Disorder
Having multiple health problems and taking multiple drugs can put seniors at risk of misusing drugs or becoming addicted

Figure 2: Risk Factors for Prescription Drug Abuse

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oid analgesics as prescribed.

The following terms are used to describe aberrant opioid behaviors: Misuse of a medication in a manner other than as specifically directed by a healthcare professional. Self-titration due to poor pain control or anxiety. Abuse—deliberate nonmedical use: crushing, snorting, injecting. Diversion (buying/selling/stealing). All these behaviors have contributed to opioid-related deaths. The biggest identified risk factors for substance abuse are presented in Figure 2.

Podiatric physicians can screen for risk factors before prescribing opioids. It is ideally done on the patient’s first visit or before prescribing opioids, although even patients who have been taking opioids for long periods of time should be routinely screened. Choice of substance abuse risk assessment tools may depend on

time available, substance involved, format to be used (paper, computer, interview), and depth desired.

There are a number of screening tools that have been developed specifically to screen for risk of opioid

revealed their findings that in a preliminary study, among patients prescribed opioids for chronic pain, the ORT exhibited a high degree of sensitivity and specificity for determining which individuals are at risk for opioid-related,

**Podiatric physicians can screen for risk factors before prescribing opioids. It is ideally done on the patient’s first visit or before prescribing opioids, although even patients who have been taking opioids for long periods of time should be routinely screened.**

misuse in the context of chronic pain treatment and that have been demonstrated to have predictive value; these tools may be helpful in determining relative risk in addition to the medical history. In 2005, Webster and Webster

aberrant behaviors. Further studies in a variety of pain and non-pain settings are needed to determine the ORT’s universal applicability.<sup>24</sup>

Cheatle, et al. revised the opioid risk tool (ORT) as the first tool developed on a unique cohort to predict the risk of developing an opioid use disorder (OUD) in patients with chronic non-malignant pain receiving opioid therapy, as opposed to aberrant drug-related behaviors that can reflect a number of other issues. The revised ORT has clinical usefulness in providing clinicians a simple, validated method to rapidly screen for the risk of developing OUD in patients on or being considered for opioid therapy.<sup>25</sup>

A recent review found that the opioid risk tools, diagnosis, intractability, risk, efficacy, and the screener and opioid assessment for patients with pain-revised assessment tools appear to have good validity.<sup>26</sup> A generic opioid risk tool patient form is presented as Figure 3. Lastly, podiatric physicians may apply *Strategies to Mitigate Opioid Overdose and Reduce Opioid Deaths* as presented in Figure 4.

**Conclusions**

Podiatric physicians during their role of dealing with acute pain management frequently prescribe opioids. Podiatrists have an ethical obligation to prescribe responsibly and cautiously to diminish the potential for opioid diversion and to help minimize the growth of the current opioid abuse epidemic. This review focuses

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Date _____				
Patient Name _____				
<b>OPIOID RISK TOOL</b>				
		<b>Mark Each Box That Applies</b>	<b>Item Score If Female</b>	<b>Item Score If Male</b>
1. Family History of Substance Abuse	Alcohol	[ ]	1	3
	Illegal Drugs	[ ]	2	3
	Prescription Drugs	[ ]	4	4
2. Personal History of Substance Abuse	Alcohol	[ ]	3	3
	Illegal Drugs	[ ]	4	4
	Prescription Drugs	[ ]	5	5
3. Age (Mark box if 16 – 45)		[ ]	1	1
4. History of Preadolescent Sexual Abuse		[ ]	3	0
5. Psychological Disease	Attention Deficit Disorder	[ ]	2	2
	Obsessive Compulsive Disorder			
	Biopolar			
	Schizophrenia			
	Depression	[ ]	1	1
<b>TOTAL</b>		[ ]		
<b>Total Score Risk Category</b>	<b>Low Risk 0 – 3</b>	<b>Moderate Risk 4 – 7</b>	<b>High Risk ≥ 8</b>	

Figure 3: Opioid Risk Tool Form

Opioid (from page 90)

on the prescribing strategies of opioid analgesics to treat lower-extremity pain. The selection of an appropriate opioid agent and prescribing strategies were introduced.

Also presented were non-opioid acute post-operative treatment options to potentially decrease the use of opioid therapy during a recovery from surgical interventions. Then, to enrich the podiatric physician’s body of knowledge, the National Academies of Sciences, Engineering and Medicine for opioid prescribing strategies were presented. Finally, building on the opioid prescribing strategy foundation, monitoring tools and strategies were presented to recognize and reduce the risk of aberrant opioid misuse and abuse. **PM**

References

<sup>1</sup> Smith RG. A review of opioid analgesics frequently prescribed by podiatric physician. JAPMA 2006 96 (4): 367-373.  
<sup>2</sup> Meyr AJ, Steinberg JS. Legal aspects of podiatric pain management JAPMA 2010 100(6): 511-517.  
<sup>3</sup> Tobin Stacey C. Skewed Opioid Prescribing Patterns in the United States—A Few Providers Prescribe a Large Proportion of Opioids | National Institute on Drug Abuse (NIDA) (nih.gov) January 21, 2021. Accessed October 14, 2022.  
<sup>4</sup> Podiatry Management Annual Prac-

tice Management Survey, Podiatry Management Magazine, Feb 2022.

<sup>5</sup> Pinzur MS. The opioid epidemic in America. Foot Ankle Int 2016; 37(11): 1264-1265.

<sup>6</sup> Ahmad FB, Cisewski JA, Rossen LM, Sutton P. Provisional drug overdose death counts. National Center for Health Statistics. 2022.

<sup>7</sup> Ringwalt, C Gugelmann, H Garrettson M, et al. Differential prescribing of opioid analgesics according to physician specialty for Medicaid patients with chronic noncancer pain diagnoses. Pain Res Manag 2014;19(4):179-185.

<sup>11</sup> Mercadante S: Opioid rotation for cancer pain: rationale and clinical aspects. Cancer Nov 1;86(9):1856-66.

<sup>12</sup> Thorson D, Biewen P, Bonte B, et al. Institute for Clinical Systems Improvement. Acute Pain Assessment and Opioid Prescribing Protocol. Published January 2014 accessed February 15, 2018.

<sup>13</sup> Dowell D, Haegerich TM, Chou R. CDC guidelines for prescribing guideline. N Engl J Med. 2016; 37(4):1501-1504.

<sup>14</sup> Kim BS, Shim DS, Lee JW, et al. Comparison of multi-drug injection versus

**Podiatrists have an ethical obligation to prescribe responsibly and cautiously to diminish the potential for opioid diversion and to help minimize the growth of the current opioid abuse epidemic.**

FIGURE 4

**Strategies to Mitigate Overdose and Reduce Opioid Deaths**

- Assure medical necessity of opioids
- Use opioid agreements
- Screen and risk stratify patients
- Use prescription drug monitoring programs
- Titrate slowly
- Reduce dose when switching between opioids
- Be cautious when rotating to methadone
- Require secure storage
- Remember that all opioid prescriptions are a trial, and discontinue if benefit does not warrant the risk
- Providing opioid medications to patients who die from their effects can expose physicians and pharmacists to criminal charges, including murder

Figure 4: Strategies to Mitigate Overdose and Reduce Opioid Deaths

<sup>8</sup> Ruoff G. Management of pain in patients with multiple health problems: a guide for the practice. Am J Med 1998; Jul 27;105(1B):53S-60S.

<sup>9</sup> Campomizzi ME: Pharmacologic management of acute pain: the basics. Pharmacy Practice News (May): 31, 2004.

<sup>10</sup> Macpherson RD: Pharmacological basis of contemporary pain management. Pharmacol Ther Nov;88(2):163-85.

placebo after hallux valgus surgery. Foot Ankle Int. 2011 Sep 32(9):856-860.

<sup>15</sup> Luiten WE, Schepers T, Luitse JS, et al. Comparison of continuous nerve block versus patient-controlled analgesia for post-operative pain and outcome after talar and calcaneal fractures. Foot Ankle Int 2014 Nov 35(11): 1116-1121.

<sup>16</sup> Gadek A, Liszka H. Preemptive local anesthetic infiltration in hallux valgus one-day surgery. Przegl Lek 2015; 72(1):16-19.

<sup>17</sup> Pollak R, Cai D, Gan TJ. Opioid-Free Recovery from Bunionectomy with HTX-011, a Dual-Acting Local Anesthetic Combining Bupivacaine and Meloxicam, as the Foundation of Non-Opioid Multimodal Analgesia. J Am Podiatr Med Assoc. 2021 May 1;111(3):Article\_15. doi: 10.7547/20-204.

<sup>18</sup> Bonnie RJ, Ford MA, Phillips JK. Committee on Pain Management and Regulatory Strategies to Address Opioid Abuse; Board on Health Sciences Policy; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine. Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use. July 12, 2017. Accessed February 26, 2018 [https://www.nap.edu/resource/24781/Recs\\_071317\\_Opioids.pdf](https://www.nap.edu/resource/24781/Recs_071317_Opioids.pdf)

<sup>19</sup> Yorkgitis BK, Brat GA Postoperative opioid prescribing: Getting it RIGHTT. Am J Surg. 2018 Feb 6. pii: S0002-9610(17) 31479-4.

<sup>20</sup> Smith RG. Mitigating the Opioid Crisis  
Continued on page 92



*Opioid (from page 91)*

sis for Wound Care Providers Using Opioid Stewardship. *Wounds*. 2020 Jun;32(6):146-151.

<sup>21</sup> Smith RG. Mitigating the opioid crisis for the lower extremity provider opioid stewardship programs. *Foot (Edinb)*. 2020 Dec;45:101708.

<sup>22</sup> Smith RG. Mitigating the Opioid Crisis for the Podiatric Physician: Remembering the Morphine acronym. *Podiatry Management* 2020 April-May 39 (3): 105-107.

<sup>23</sup> Sharma M, Lee C, Kantorovich S et al. Validation Study of a Predictive Algorithm to Evaluate Opioid Use Disorder in a Primary Care Setting. *Health Serv Res Manag Epidemiol*. 2017 Aug 24;4:1-9.

<sup>24</sup> Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. *Pain Med*. 2005 Nov-Dec;6(6):432-42.

<sup>25</sup> Cheattle MD, Compton PA, Dhingra L, Wasser TE, O'Brien CP. Development of the Revised Opioid Risk Tool to Predict Opioid Use Disorder in Patients with Chronic Nonmalignant Pain. *J Pain*. 2019 Jul;20(7):842-851.

<sup>26</sup> Chou R, Fanciullo GJ, Fine PG, et al. Opioids for chronic noncancer pain: prediction and identification of aberrant drug-related behaviors: a review of the evidence for an American Pain Society and American Academy of Pain Medicine clinical practice Guideline. *J Pain*. 2009 Feb;10(2):131-46.



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**CME EXAMINATION**

**SEE ANSWER SHEET ON PAGE 94.**

1) According to the CDC's National Center for Health Statistics there were an estimated \_\_\_\_\_ drug overdose deaths in the United States during the 12-month period ending in April 2021.

- A) 75,000
- B) 300,000
- C) 250,000
- D) 100,306

2) Which one of the following percentages from Podiatry Management's annual surveys of oral analgesic prescriptions written is true?

- A) Percocet® 2%
- B) Norco® 9.5%
- C) Ultram® 40%
- D) Hydrocodone 28%

3) Smith's acronym "MORPHINE" relates to opioid stewardship. Match the "Letter" with its corresponding correct word meaning.

- A) "R"—Rate of adverse event
- B) "E"—Evaluate opioid adverse effects
- C) "H"—Halting opioid prescriptions
- D) "I"—Information technology

4) The White House Office of National Drug Control Policy recommended the use of prescription drug monitoring programs to reduce abuse in \_\_\_\_\_.

- A) 2016

- B) 2012
- C) 2011
- D) 2013

5) Identify the active ingredients of HTX-011 as a dual-acting, local anesthetic containing \_\_\_\_\_, and low-dose \_\_\_\_\_ in an extended-release polymer.

- A) Lidocaine and Ibuprofen
- B) Ropivacaine and Naproxen
- C) Lidocaine and Ropivacaine
- D) Bupivacaine and Meloxicam

6) Opioid selection is based on patient-specific factors, such as \_\_\_\_\_?

- A) Hair color
- B) Age and renal function
- C) Eye Color
- D) Height

7) Reflecting on Kim, et al., investigation of hallux valgus deformities of patients who received local infiltration of a test solution, which product was not part of the test solution?

- A) Ropivacaine
- B) Morphine
- C) Ketorolac
- D) Norepinephrine

*Continued on page 93*

- 8) Identify behavior(s) that have been identified as behavior(s) that have caused opioid overdose and death.
- A) Self-titration due to poor pain control or anxiety
  - B) Abuse—deliberate non-medical use: crushing, snorting, injecting
  - C) Diversion (buying/selling/stealing)
  - D) All of the above answers contribute to opioid overdose and death.
- 9) “RIGHTT” relates to a simple acronym for surgeons to integrate best-practice strategies into their management of post-surgical opioids. Match the “Letter” with its corresponding correct word meaning.
- A) “R”—Rate of adverse event
  - B) “G”—Getting rid of pain
  - C) “H”—Halting Opioids
  - D) “I”—Interviewing family members
- 10) Reflecting on the podiatric prescriber’s role to improve opioid prescription writing strategy, which statement is true?
- A) Take caution in the manner in which opioid analgesic prescriptions are written or dispensed.
  - B) Limit the number of pills or dosing units prescribed.
  - C) Write out the number of pills prescribed (“ten” instead of “10”).
  - D) All the above strategies are true.

### SEE ANSWER SHEET ON PAGE 94.

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**Refocusing Attention on Opioid Prescribing:**  
**Podiatric Implications**  
**(Smith)**

**Circle:**

- |            |             |
|------------|-------------|
| 1. A B C D | 6. A B C D  |
| 2. A B C D | 7. A B C D  |
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A B C D
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