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Opioid Use: The ED Conundrum

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Every day, every shift, I am confronted by a patient that I believe is drug-seeking. Statistics and my own personal experience suggest these patients are becoming more common. Chronic pain has become a common disease, and many patients appear to believe they are entitled to ever increasing doses of pain medications. Policies of The Joint Commission and patient satisfaction questionnaires that ask if pain was adequately controlled reinforce these behaviors. Caught between wanting to limit opioid addiction and diversion and wanting to address real pain and keep good patient satisfaction scores, the emergency physician is in a no-win situation.

Recently, I tried to help one such patient who had repeated visits to our emergency department for abdominal pain. Since I had seen him more than 20 times in the past few years, we had developed some relationship. Over time, I helped him understand that he needed another solution for his pain. He eventually made an appointment with a primary care provider, the first step to a pain clinic appointment. After waiting three months for an appointment, he was rapidly dismissed from the practice with a terse note in the record — “We don't deal with patients who need opioids for pain.” On the same day this patient returned to the ED, another appeared who had been refused a pain clinic appointment because there was concern she was addicted. These cases illustrate the frustration of both providers and patients who deal with chronic pain, addiction, and drug-seeking behavior.

— Sandra M. Schneider, MD, Editor

Introduction

Opioid use/abuse is an increasing problem. In a mail survey sent to a random community sample, 4.1% of respondents admitted to taking opioids at that time.¹ These patients present to the emergency department (ED), often frustrated by inconsistent approaches to their pain. When their expectations for pain relief are not met, they can become upset and belligerent. Both The Joint Commission and patient satisfaction surveys ask specifically if a patient's pain was controlled. Yet many of these patients display classic drug-seeking behavior, asking for drugs by name and quantities that are not indicated by their symptoms. To further aggravate the problem, patients on maintenance doses of opioids are often referred to the ED when they overuse their medications and run out. Primary care physicians (or their offices) deny additional medications, but then refer the patient to the ED.

Background

Statistics released by the Drug Abuse Warning Network (DAWN) tout the drastic upswing in the abuse of prescription opioids and the related deaths.² EDs in the United States reported a 156% increase in the non-medical use of opioids from 2004-2010. (See Table 1.) In a recent national survey, 41% of ED physicians reported that 6-10% of their patients are there for chronic pain, and more than 7% stated that the number of patients presenting for chronic pain

Executive Summary

- Opioid use has increased dramatically over the past decade. Along with increased use, there has been an increase in deaths from opioid overdose (specifically from hydrocodone and oxycodone) and diversion of these drugs. Deaths from hydrocodone and oxycodone now exceed those from heroin and cocaine overdose combined.
- Pain protocols or contracts are best made between a patient's primary care physician and the patient when the patient is not in crisis or pain. Once made, they should be available to emergency providers and easily linked to the patient's record. Emergency providers should follow these protocols when dealing with acute or chronic pain.
- Use of opioids is associated with several complications, including sedation and constipation. Narcotic bowel syndrome is seen in some patients, with worsening pain associated with increasing doses of opioids. Treatment is tapering off narcotics. However, many patients will return to the use of narcotics with time.
- Prescription monitoring programs within states have been shown to reduce the use of opioids. However, current programs have some limitations. Many are cumbersome and time-consuming, limiting their routine use. Few, if any, cross state lines. Most are not real-time and may receive pharmacy input on a monthly basis.

Table 1: Drugs with Increasing Involvement in Emergency Department (ED) Visits for Drug Misuse or Abuse: 2004-2010

Drug	ED Visits, 2004	ED Visits, 2010	Percent Change 2004 to 2010*
Illicit Drugs	991,640	1,171,024	NC
Marijuana	281,619	461,028	64%
MDMA (Ecstasy)	10,227	21,836	114%
Pharmaceuticals	626,472	1,345,645	115%
Anti-anxiety and insomnia drugs	210,711	472,769	124%
Benzodiazepines	170,471	408,021	139%
Antipsychotics	41,930	69,149	65%
CNS stimulants (e.g., ADHD drugs)	10,656	31,507	196%
Muscle relaxants	29,014	58,783	103%
Pain relievers	282,275	659,969	134%
Narcotic pain relievers	166,338	425,247	156%
Hydrocodone products	46,536	115,739	149%
Oxycodone products	51,418	182,748	255%

*Percent change is measured as difference in the estimated number of visits between 2004 and 2010. Reported changes are significant at the .05 level; "NC" signifies no significant change.

Source: 2010 SAMHSA Drug Abuse Warning Network (DAWN).

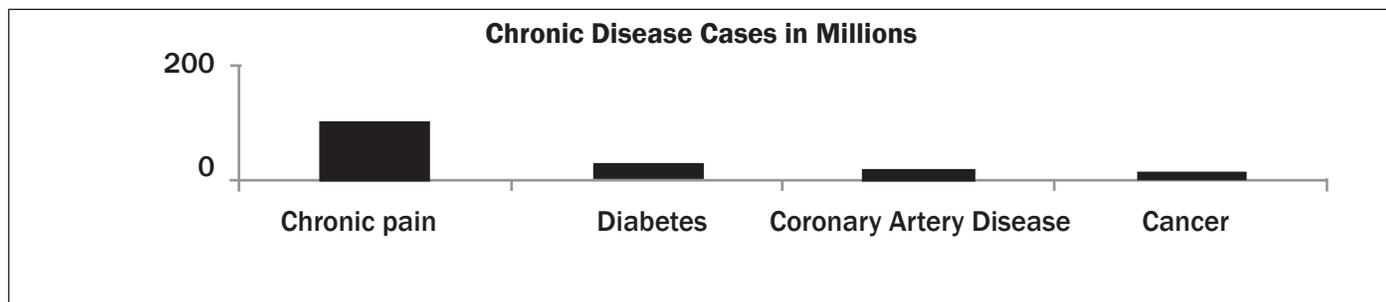
was more than 20%.³ In 2010, the misuse or abuse of drugs accounted for 46.8% of all ED visits related to adverse drug events. The most common drugs of abuse included oxycodone, with a 255% increase, and hydrocodone, with a 149% increase. During the same time period, benzodiazepine abuse increased 139%.

The Centers for Disease Control

and Prevention (CDC) has reported equally disturbing data. In the United States, 100 people per day die from drug overdoses, a rate of death that has tripled since 1990.⁴ For every four deaths that occur due to prescription drugs, three are related to prescription opioids. Deaths from opioids now are greater than those from heroin and cocaine

combined.⁵ The 2009 National Youth Risk Behavior Survey revealed that one in five high school students have taken a prescription drug that has not been prescribed for them,⁶ while one in 20 people ages 12 and older have admitted to using a prescription opioid within the past year for purely recreational reasons.⁷ A reported 12 million people in the

Table 2: Incidence of Chronic Diseases in the United States



United States use prescription opioids for the euphoric effect vs. pain relief. The abuse of methamphetamines, marijuana, cocaine, steroids, and even alcohol has shown a decline in the time period from 1999-2009.⁸

While our nation battles the abuse of prescription opioids, the prescribing of these medications has drastically increased. As the population lives longer, with coexisting aging issues related to pain, the demand for analgesic medications increases. The rise in obesity also contributes to the development of chronic pain related to stress on joints and the back. According to the CDC, in the past 15 years, the prescribing of opioids has increased tenfold.⁹ In 2010, there were enough opioids prescribed to medicate “every American adult around the clock for one month.”¹⁰ History reveals that an increase in the availability of a drug increases the risk for abuse.¹¹ Responsible prescribing of opioids, coupled with risk-mitigation strategies, has never been more paramount.

Opioid demand has increased as the number of patients with chronic pain has become more prevalent; in fact, chronic pain has reached epidemic proportions. The American Chronic Pain Association describes chronic pain as “... ongoing or recurrent pain, lasting beyond the usual course of acute illness or injury or more than 3 to 6 months, and which adversely affects the individual’s well-being.”¹² Chronic pain affects approximately 100 million adults in the United States, costing an average of \$2000 for every U.S. resident.¹³ The National Center for Health Statistics reported 26% of

adults older than the age of 20 years experience chronic pain.¹⁴ Chronic pain is four times more prevalent than diabetes,¹⁵ nearly six times more prevalent than coronary heart disease,¹⁶ and eight times more prevalent than cancer.¹⁷ (See Table 2.)

According to the Institutes of Medicine, the most common chronic pain treated is low back pain (28.1%), followed by knee pain (19.5%) and migraine or headache pain (16.1%).¹³ Recent clinical guidelines recommend that emergency physicians use caution when treating patients with acute low back pain, and avoid opioids, which have not been shown to be more efficacious than nonsteroidal anti-inflammatory drugs (NSAIDs). When opioids are prescribed, the quantity should be for less than one week.¹⁸ Chronic pain historically has been managed poorly. In the 2006 “Voices of Chronic Pain” survey, respondents revealed that they felt little control over their pain (51%), and that breakthrough pain experienced on a daily basis greatly impacted their quality of life (60%).¹⁹ Sadly, 50-75% of cancer patients, at the time of death, have moderate-to-severe pain.²⁰ Clearly, the increase in opioid prescribing has not been effective in alleviating chronic pain. When do these chronic conditions that are frequently evaluated and treated by the emergency physician warrant opioid prescribing?

Management of the Crisis

Government representatives have proposed legislation in an attempt to help mitigate the addiction crisis. Congressman Vern Buchanan

(R-FL) proposed federal legislation, H.R. 1065: Pill Mill Crackdown Act of 2011, and Senator Joe Manchin (D-WV) proposed S. 1760: Pill Mill Crackdown Act of 2011 to increase fines and prison terms for individuals who prescribe opioids for monetary gain by running “pill mills.”²¹ Although the bills are still in committee, it is likely that some federal legislation will be forthcoming. Many state medical boards have enacted legislation regarding rules for the prescribing of scheduled substances, while state legislators have enacted additional monitoring, fines, and imprisonment for illegal prescribing. Thirty-seven states have instituted prescription monitoring systems to help physicians, pharmacists, and law enforcement track the patterns of individuals obtaining controlled substances via prescriptions, while 11 additional states are in the legislative process for implementation.²² Linkage of information among states in nearby geographical locations is being planned in some regions to better monitor those individuals who cross state lines to hide prescription abuse. Emergency physicians have a responsibility to link into their state resources for monitoring prescriptions and to validate or invalidate patient behaviors that are suspicious of substance abuse. The Alliance of States with Prescription Monitoring Programs (www.pmpalliance.org) provides a list for available programs in your state.

Resources from pharmaceutical companies that manufacture and distribute potent opioids are readily available in the form of Risk Evaluation and Mitigation Strategies (REMS) and patient education

Table 3: Screening Tool Samples for Clinical Use – Websites

Screening Tool	Website
NIDA	http://www.drugabuse.gov/nmassist/
ORT	http://www.partnersagainstpain.com/printouts/Opioid_Risk_Tool.pdf
SOAPP	http://www.algosresearch.org/PracticeTools/DxTestForms/SOAPPTest.pdf
DIRE	http://www.jfponline.com/Pages.asp?AID=8949
COMM	http://nationalpaincentre.mcmaster.ca/documents/comm_sample_watermarked.pdf

tools. The FDA began requiring REMS in 2007 for extended-release and long-acting (ER/LA) opioid analgesics.²³ In general, emergency physicians should avoid prescribing extended-release or long-acting opioid medications.

Complications of Opioid Use/Abuse

Clearly the most significant complication of chronic opioid use is death from overdose, as described above. Sadly, 92% of these deaths occur in individuals between the ages of 18 and 54 years.²⁴ Diversion of the drug from the original patient occurred in 63% of these deaths.

Constipation is common with the use of opioids. There is some suggestion that constipation is higher with hydrocodone than with oxycodone.²⁵ Sedation and nausea are also commonly seen. All opioids are known to be addictive.

Recently, chronic abdominal pain associated with prolonged opioid use has been described.²⁶ Patients characteristically have an increase in their abdominal pain with increasing doses of narcotics. While constipation and nausea are common in this syndrome, vomiting is infrequent.²⁷ Treatment is to wean the patient from their narcotic use and eventually eliminate the drug altogether. While treatment is effective, in the study by Tuteja, nearly 50% of patients resumed his or her narcotic use within three months of detoxification.

Available Tools and Resources

Screening Tools for Abuse Potential. Several assessment tools are available for screening patients

for possible substance abuse. Tools that aid in predicting abuse potential prior to prescribing include NIDA Drug Use Screening Tool, Opioid Risk Tool (ORT), Screener and Opioid Assessment for Patients with Pain (SOAPP/SOAPP-R), and Diagnosis Intractability Risk Efficacy Tool (DIRE). However, many of these are cumbersome, and none have been validated in the ED setting. In specific cases, it may be beneficial to work with the patient's primary care provider to provide the screening and establish a patient contract. Table 3 lists websites at which the tools can be accessed for clinical use.

Toxicology Screening. Random toxicology screening as an outpatient is recommended for any patient prescribed opioids longer than 3 months. Such testing is rarely used in the ED. However, in some EDs, patients with legitimate pain medication needs, such as those with sickle cell disease, are screened for cocaine use by urine toxicology, and if found to be positive, are denied outpatient prescriptions for opioids.²⁸ Provisions should be made to ensure that the patient's own urine is what is tested.

Opioid Agreements. An opioid agreement should delineate specific rules that the patient must follow while being prescribed opioids. These are best prepared between a patient and their primary care provider. According to APS and American Academy of Pain Medicine (AAPM) clinical guidelines,²⁹ the following components should be included:

- A discussion of the risks and benefits of opioid therapy.
- The types of common side effects and risks of adverse

effects, including abuse, addiction, and overdose.

- The risk of hyperalgesia, sexual, and endocrine dysfunction.
- Goals of opioid therapy.
- How the opioids should be taken; scheduled vs. as needed, and frequency, with guidelines for tapering and weaning. The patient should be informed when he or she might need to discontinue the medication, including signs of aberrant behavior.
- Expectations for office follow-up, refill process, pill counts, and random drug screening.
- Use of one prescriber and one pharmacy for opioid therapy.
- Guidance on safe storage of prescriptions to guard against theft and policy on theft replacement.
- How to properly dispose of opioids.
- Alternatives to opioid therapy.

Informed consent and a sample opioid agreement can be found in Appendix 6 and 7 at [www.jpain.org/article/S1526-5900\(08\)00831-6/fulltext#appsec6](http://www.jpain.org/article/S1526-5900(08)00831-6/fulltext#appsec6). Once a pain contract is created, it should be followed in the ED and by all other providers. However, the ED needs to have a system to link these protocols in a useful way. Electronic medical records are quite useful, providing a notification that a protocol exists every time the patient presents.

Equianalgesic Dosing Charts. Equianalgesic dosing charts provide dosing guidelines when switching from one opioid to another. (*See Table 4.*) Calculating an accurate conversion more likely provides a safe dose with analgesic efficacy. Making a switch

Table 4: Equianalgesic Opioid Table (mg)

Opioid Agonist Available dosage forms	Approximate equianalgesic dose ¹ (The shortest time interval is listed)		Recommended Starting Dose for Moderate-to-Severe Pain (adults and children ≥ 50 kg body weight) ²	
	Oral	Parenteral	Oral	Parenteral
Morphine 15 mg tablet; 10 mg/2.5 mL oral liquid; 2 mg, 4 mg, 8 mg, 10 mg, 15 mg syringes; PCA	30 mg q 3 hrs (around the clock dosing) 60 mg q 3 hrs (single or intermittent dosing)	10 mg q 3 hrs	10 mg q 3 hrs	5 mg q 3 hrs
MS Contin (Morphine, <u>controlled release</u>) 15 mg, 30 mg, 100 mg tablets	90 mg q 12 hrs	Not available	30 mg q 12 hrs	Not available
Codeine 15 mg tablet; 60 mg syringe	180 mg q 3 hrs	130 mg q 3 hrs	60 mg q 3 hrs ³	60 mg q 2 hrs (IM/SQ)
Fentanyl patch (Fentanyl Transdermal) 12 mcg/hr, 25 mcg/hr, 50 mcg/hr, 75 mcg/hr, 100 mcg/hr patch	25 mcg/hr transdermal fentanyl = 12 mg/day parenteral morphine = 36 mg/day oral morphine. Most patients are adequately maintained with q 72 hr transdermal fentanyl. ⁴		Transdermal fentanyl is NOT appropriate for acute pain. It should ONLY be used in patients already receiving opioid therapy and who have demonstrated opioid tolerance, and who require a total daily dose at least equivalent to 25 mcg/hr transdermal fentanyl. ⁵	
Actiq (Fentanyl Transmucosal) 400 mcg, 600 mcg, 800 mcg troche	Not available		Patients should not be on Actiq unless opiate tolerant to a minimum of 25 mcg of transdermal fentanyl or 60 mg of oral morphine per day.	
Sublimaze (Fentanyl) IV, PCA	Not available	0.1 mg	Not available	25 mcg q 2 hrs
Hydrocodone (in Lortab, Norco, Vicodin) Only in combination	30 mg q 3 hrs	Not available	10 mg q 3 hrs	Not available
OxyContin (Oxycodone, <u>controlled release</u>) 10 mg, 20 mg tablet	60 mg q 12 hrs	Not available	10 mg q 12 hrs	Not available
Dilaudid (Hydromorphone) 2 mg tablet; 2 mg/mL injection	7.5 mg q 3 hrs	1.5 mg q 3 hrs	2 mg q 3 hrs	1 mg q 3 hrs
Dolophine (Methadone) 5 mg, 10 mg tablet; 40 mg dispersible tablet; 10 mg/mL oral liquid; 10 mg/mL injection	10 mg q 6 hrs	5 mg q 6 hrs	5 mg q 6 hrs	2.5 mg q 6 hrs
Roxicodone (Oxycodone, also in Percocet, others) 5 mg, 7.5 mg, 10 mg; 5 mg/5 mL oral liquid	20 mg q 3 hrs	Not available	5 mg q 3 hrs	Not available
Ultram (Tramadol) 50 mg	1 tablet has comparable analgesia to 1 Tylenol #3		50 mg q 6 hrs	Not available

¹Published tables vary in the suggested doses that are equianalgesic to morphine. Clinical response is the criterion that must be applied for each patient; titration to clinical responses is necessary. Because there is a not complete cross-tolerance among these drugs, it is usually necessary to use a lower than equianalgesic dose when changing drugs and to retitrate to response.

²Recommended doses do not apply for adult patients with body weight less than 50 kg. Recommended doses do not apply to patients with renal or hepatic insufficiency or other conditions affecting drug metabolism and kinetics.

³Codeine doses > 65 mg often are not appropriate because of diminishing incremental analgesia with increasing nausea, constipation, and other side effects.

⁴Because of the increase in serum fentanyl concentration over the first 24 hours following initial system application, the initial evaluation of the maximum analgesic of transdermal fentanyl cannot be made before 24 hours of wearing. The initial transdermal fentanyl dosage may be increased after 3 days. During the initial application of transdermal fentanyl, patients should use short-acting analgesics as needed until analgesic efficacy with transdermal fentanyl is attained. Thereafter, some patients still may require periodic supplemental doses of other short-acting analgesics for “breakthrough” pain.

⁵Patients who are considered opioid-tolerant are those who have been taking, for a week or longer, at least 60 mg of morphine daily, or at least 30 mg of oral oxycodone daily, or at least 8 mg of oral hydromorphone daily or an equianalgesic dose of another opioid.

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Table 5: Addiction vs. Pseudoaddiction

Addiction	Pseudoaddiction
Losing prescriptions. Asking for opioid replacements.	May use other available drugs to treat symptoms; excessive acetaminophen or NSAID use, burns from heating pads, Benadryl to sleep, etc.
Calling at night or on weekend for refills/additional meds — wants to get medical provider partner who doesn't know them; may call office to ask who is on for the weekend.	Typically calls during office hours, but could have pain exacerbate on off hours.
Sense of urgency — calls office multiple times in a day > 2 times. May show up at office.	Aggressive complaining about needing more drugs, but typically will only call office 1-2 times.
Obtaining opioids/benzodiazepines from multiple providers (won't tell you) — check state prescription report at initial visit.	May have several providers but WILL tell you who is prescribing what medication for what purpose.
Multiple allergies — explore, can skin test.	Requesting specific drugs — just knows what works from past exposure.
Refuses additional testing for pain complaints.	May be resistant to testing that has been done in past but ultimately will comply; may ask for additional testing.
Caught selling prescription drugs to get drug of choice, or forging prescriptions — changing “n” on prescription. Stealing drugs.	May borrow drugs from family members but will tell prescriber. Will not steal or forge prescription drugs.
Using drug by unprescribed route — snorting or injecting, chewing long-acting agents.	May be anxious about changes in medications or route for fear of being back in pain.
Concurrent abuse of other drugs will show up on tox screen. Other addictions present.	Tox screen negative for other illicit drugs.
Repeatedly escalating dose despite warnings.	Occasionally escalates drug dose but will let you know.
Frequent ED visits WITHOUT telling prescriber.	May visit ED but WILL tell doctor to convince him/her that problems exist.
Making up or embellishing chronic diagnoses; reluctant to give the previous physician's name or number.	Willingly provides paperwork and physician name for other diagnoses.
Exhibits work, family, social deterioration. Unemployed or frequent job changes.	May temporarily not be working unless disabled, but often employed.

in opioids without a calculation may cause oversedation or respiratory depression, or on the other end of the spectrum, inadequate analgesia. Dose conversions are most easily calculated by totaling the past 24-hour usage of all opioids into a morphine equivalent. The sum can then be used to convert to an equianalgesic amount of the newly prescribed opioid. Most references suggest using a one-third to one-half total reduction in the sum before conversion due to the patient's incomplete cross tolerance, resulting in an unpredictable response.²⁹ Additionally, most references caution against initiating methadone unless experienced in its use, such as a pain specialist or palliative care specialist. The long half-life of methadone,

with the cumulative effect, and the unpredictability of equianalgesic conversions, can be dangerous. Patients maintained on a stable dose for pain management could be managed by a primary care provider; special licensing to prescribe methadone only applies to opioid detoxification or rehabilitation maintenance programs.³⁰

Managing Pain with Opioids

The first step in prescribing opioids is the decision to initiate the therapy. Some decision-making steps have already been described, including the use of a screening tool and checking prescription history via a state website. Other assessment questions

that have demonstrated predictive value may be utilized. Past or current use or abuse of tobacco, alcohol, or other illicit drugs all have been shown to increase the risks for future abuse, while existence of addictive behaviors, such as gambling, sex addiction, Internet addiction, kleptomania, or other impulse control disorders, are directly correlated with an increased risk of substance abuse.³¹⁻³³ According to Grant, gamblers have been shown to have a tenfold increase in risk of substance abuse as compared with the normal population.³¹ Other addiction disorders demonstrate similar behaviors to substance abuse including uncontrolled use despite harm and diminished self-control due to cravings.³¹

Table 6: Washington Emergency Department Opioid Prescribing Guidelines

1. One medical provider should provide all opioids to treat a patient's chronic pain.
2. The administration of intravenous and intramuscular opioids in the ED for the relief of acute exacerbations of chronic pain is discouraged.
3. Emergency medical providers should not provide replacement prescriptions for controlled substances that were lost, destroyed, or stolen.
4. Emergency medical providers should not provide replacement doses of methadone for patients in a methadone treatment program.
5. Long-acting or controlled-release opioids (such as OxyContin®, fentanyl patches, and methadone) should not be prescribed from the ED.
6. EDs are encouraged to share the ED visit history of patients with other emergency physicians who are treating the patient using the Emergency Department Information Exchange (EDIE) system.
7. Physicians should send patient pain agreements to local EDs and work to include a plan for pain treatment in the ED.
8. Prescriptions for controlled substances from the ED should state the patient is required to provide a government issued picture identification (ID) to the pharmacy filling the prescription.
9. EDs are encouraged to photograph patients who present for pain-related complaints without a government issued photo ID.
10. EDs should coordinate the care of patients who frequently visit the ED using an ED care coordination program.
11. EDs should maintain a list of clinics that provide primary care for patients of all payer types.
12. EDs should perform screening, brief interventions, and treatment referrals for patients with suspected prescription opiate abuse problems.
13. The administration of Demerol® (meperidine) in the ED is discouraged.
14. For exacerbations of chronic pain, the emergency medical provider should contact the patient's primary opioid prescriber or pharmacy. The emergency medical provider should only prescribe enough pills to last until the office of the patient's primary opioid prescriber opens.
15. Prescriptions for opioid pain medication from the ED for acute injuries, such as fractured bones, in most cases should not exceed 30 pills.
16. ED patients should be screened for substance abuse prior to prescribing opioid medication for acute pain.
17. The emergency physician is required by law to evaluate an ED patient who reports pain. The law allows the emergency physician to use their clinical judgment when treating pain and does not require the use of opioids.

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Neurobiologists believe that the similarities of addictive disorders are attributable to abnormalities in serotonin production and availability.³¹ A discussion regarding past or current abuse behaviors should be included as part of the risk stratification for routine screening prior to opioid initiation.

Other predictors may include mental health disorders or a history of physical or sexual abuse as a child.^{32,33} Substance abusers report high rates

of major depression and anxiety (23.5%) as well as high rates of sexual abuse (25.4%).³⁴ As the incidence of anxiety disorders, mood disorders, or behavior disorders increases, there is a direct linear correlation with an increase in substance abuse.³⁵ As the addiction develops, unemployment or frequent job changes, failed relationships or marital problems, involvement in litigation, seeing multiple medical providers, or “doctor shopping” may emerge.³³

Patients with undermanaged pain may develop pseudoaddictive behaviors, which can be difficult to differentiate from addictive behaviors. Although both behaviors are not 100% consistent with each category, a comparison of the most likely categorized addictive and pseudoaddictive behaviors is included in Table 5.³⁶

Patients who have altered prescriptions or sold their prescriptions have committed a felony. They should be reported to law enforcement.

Strategies for Dealing with Chronic Pain Patients in the ED

Patients with acute chronic pain can be some of the most frustrating to treat. The ED provider is often faced with little information about the patient's past behavior or underlying disease. Without a pain protocol, they often are left to guess at what treatment is best. Even when drug-seeking behavior is identified, the ED is not the place to deal with addiction.

One strategy often used in the ED is to provide a limited amount of opioids and refer the patient to a pain treatment center. Most of these centers are located in urban areas, limiting their usefulness in rural areas. Patients should be warned in writing that failure to make or keep an appointment with a pain center will lead to a denial of further opioids from the ED.

Many states have prescription monitoring programs available to clinicians. These range from "after the fact" reporting that a patient has received many prescriptions from multiple physicians to an online check of recent prescriptions filled. While there are few studies of their effectiveness, in one study done in Ohio, access to recent prescription information led to a change in the current prescription in more than 40%, with 61% of patients receiving less medication and 39% receiving more.³⁷

However, many monitoring programs are cumbersome, requiring special user names and passwords and multiple screens before the information becomes available. In some cases, upload of the data from pharmacies is not real-time, allowing patients to acquire large amounts of medications in a short period of time. Few, if any, of the programs cross state lines. Attempts to make query of these databases mandatory prior to prescribing an opioid have not been supported, largely because of these concerns. It is hoped that with time easily accessible, real-time databases will become available to

aid the emergency physician.

Other strategies for dealing with opioid requests in the ED exist but have not been rigorously evaluated. Uncoordinated attempts at limiting opioids by individuals are not generally successful, as patients simply try again later with a different provider. It is better when an entire group or even an entire community decides to go "oxy-free." A variant on this is to provide repeat users of the ED with a letter outlining that in the future, no opioids will be prescribed without a written pain treatment protocol from their physician. It is essential that all ED providers are aware that such a letter has been issued and will abide by it.

Recently the state of Washington attempted to limit payment for some patients seen in EDs in an attempt to deal with escalating costs. The Washington State Chapter of the American College of Emergency Physicians working with other groups created a set of guidelines for prescribing opioids in the ED, which have been adopted statewide. (See Table 6.) These guidelines include the fact that stolen or lost prescriptions will not be replaced and long acting opioids will not be prescribed. While the results of this specific intervention have not been evaluated, these guidelines represent a starting point for other groups, including states, to develop guidelines for opioid use.

Managing the Palliative Care Patient on Opioids

Managing the pain of a terminally ill patient seems an obvious ethical responsibility, yet more than 50-90% of cancer patients report moderate-to-severe pain at the end of life.³⁸ As many as 75% of heart failure patients in the last 6 months of life and 50% of AIDS patients describe pain related to the disease itself, comorbidities, or related treatment.³⁸ A large study conducted from 1994-2006 concluded that about 26% of patients in the last 2 years of life experienced "clinically significant" or moderate pain on a regular basis, which increased to 46% in the last

month of life.³⁹ The American Medical Association Code of Ethics is clear by stating, "Physicians have an obligation to relieve pain and suffering and to promote the dignity and autonomy of dying patients in their care. This includes providing effective palliative treatment even though it may foreseeably hasten death."

There are many myths surrounding pain management at the end of life, including saving strong analgesics until near death.⁴⁰ The reality is that strong analgesics may be needed early in diagnosis to enhance the patient's quality of life until death.

The World Health Organization published an analgesic ladder for cancer pain, familiar to most clinicians, suggesting initiation of therapy with an oral non-opioid with adjuvant for mild pain, progressing to opioids with non-opioids (NSAIDs or acetaminophen) and adjuvants for severe pain.⁴¹ Delay in aggressive pain therapy may occur if the patient's pain is severe, and the clinician conservatively begins treatment at the base of the ladder. In an article written by Fine in 2012, it was noted that 20% of patients with advanced disease are not adequately managed with the analgesic ladder.⁴² Since the undertreatment of pain is widely published, related to the palliative population, multimodal therapies including neuropathic agents and opioids should be employed.

The American College of Physicians (ACP) published practice guidelines for end-of-life care in 2008 and recommended a combination of radiotherapy/radiopharmacology, opioids, NSAIDs, adjuvant medications, and particularly bisphosphonates for bone cancer from breast cancer or myeloma.⁴³ Clinical guidelines developed regarding opioids for palliative care still recommend morphine as the primary mainstay of opioid therapy.⁴⁴ A long-acting version of morphine for sustained pain, along with breakthrough dosing of a short-acting agent, is recommended. As with all opioid therapy, individual variances may require use of another opioid such as oxycodone

or hydromorphone, particularly if the patient has renal dysfunction. Transdermal fentanyl preparations are not recommended for initial therapy, as a level of opioid tolerance should be established prior to initiating. If the patient cannot tolerate oral therapy, subcutaneous injection of opioid should be considered.⁴⁴ Fear of respiratory depression from potent opioids should not outweigh the benefit of effective analgesia.⁴⁵ Many states have compassionate care laws in place that protect the physician from litigation for treating the dying patient.

The emotional component of the experience of dying cannot be ignored when managing the pain of a palliative care patient. Multiple literature sources cite depression as a major component at the end of life.⁴⁶ Clearly, undermanaged emotional distress can exacerbate physical pain. Interdisciplinary management of the patient is paramount for optimizing pain control. The ACP clinical guidelines include the following recommendations (summarized)⁴³:

- Pain, dyspnea, and depression should be regularly reassessed.
- Pain therapies utilized at end of life should be clinically proven; for cancer pain, this includes the use of NSAIDs, opioids, and bisphosphonates.
- Dyspnea should be actively managed with opioids and oxygen.
- Depression should be treated with tricyclic antidepressants, SSRIs, and psychosocial support.
- Advance care planning, including completion of Advance Directives, should be completed.

Risks of addiction in the palliative care population in patients who have no previous history of addiction is extremely rare.⁴⁷ Presenting signs of aberrant behaviors in terminal patients are often manifestations of pseudoaddiction and undertreated pain.⁴⁷ Patients who have a prior history of substance abuse will need to be monitored more closely, just as any patient with an addiction history. Since substance abuse lends itself to

a higher risk of chronic disease and cancer, patients should be actively screened regardless of terminal diagnosis.

Summary

The decision to prescribe opioids for a patient with non-cancer pain is a difficult and calculated one. Patients with a substance abuse or mental health history should not be denied opioids when experiencing a co-existing pain condition that is affecting their quality of life. Careful screening and using a pre-determined pain management plan is imperative for optimal management of all patients, including palliative care.

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- this protocol several times in the past year. The patient wants the morphine, but asks for a prescription of oxycodone when she leaves. You should:
- A. Write a prescription for 3 days of oxycodone, as the patient appears to be in pain.
 - B. Refuse the morphine because other drugs work just as well for migraine.
 - C. Give the morphine but refuse to write a prescription for oxycodone.
 - D. Refuse to treat the patient, suggesting she go to another ED.
3. Your patient reports his opioid prescription was stolen while vacationing in Florida. You should:
 - A. Replace the prescription.
 - B. Report the patient to the police for possible illegal activity.
 - C. Refuse to replace the prescription, but offer a non-opioid replacement.
 - D. Give a 7-day supply so the patient has time to contact the prescribing physician.
 4. Signs of narcotic bowel syndrome include all of the following *except*:
 - A. increasing pain with increasing dose of opioids
 - B. reduction in pain with reduction of opioids
 - C. nausea
 - D. profuse vomiting
 5. Which of the following is true of state-wide prescription monitoring programs?
 - A. They most often provide real-time information on filled prescriptions.
 - B. They are often easy to use.
 - C. They cross state lines.
 - D. They have led to changes in prescription practices in the ED.
 6. In general, emergency physicians should *not* do which of the following?
 - A. prescribe long-acting or controlled-release opioids
 - B. prescribe acute pain medications for cancer
 - C. write prescriptions for more than 7 days of opioids
 - D. prescribe opioids to patients who gamble
 7. A patient presents with an exacerbation of chronic pain on the weekend. His primary care physician who generally writes prescriptions for these medications is ill and there is no physician covering the practice. Which of the following is the best strategy for dealing with the patient?
 - A. Refuse to give any opioids and suggest a non-narcotic medication.
 - B. Prescribe 3-5 days of the medication and have the patient call the PCP's office on the first business day.
 - C. Give the patient an IM injection of a narcotic and have him return if the pain recurs.
 - D. Prescribe 1 month of the opioids to allow the patient time to find another provider.

Physician CME Questions

1. There is increased concern about opioid prescribing because:
 - A. The number of deaths from opioids has been increasing.
 - B. The number of prescriptions for opioids has increased markedly.
 - C. There is increased diversion of these drugs.
 - D. all of the above
2. A patient with a migraine headache is sent in by her primary care provider during the weekend. The patient has a protocol on file with the ED stating that she is to be treated with a single large dose of morphine but no outpatient narcotics are to be given. A review of old ED records shows the patient has received

8. A patient with advanced cancer presents with an acute exacerbation of her pain. She is currently taking hydrocodone 1 tablet every 3 hours. You feel the patient needs more analgesia. Which of the following would be best to prescribe?
- morphine tablet 10 mg every 3 hours
 - MS Contin 45 mg every 12 hours
 - oxycodone 30 mg every 3 hours
 - dilaudid orally 2 mg every 3 hours
9. Your group has decided to try to limit the number of opioids prescribed by refusing to write prescriptions for certain patients considered to be drug-seeking. Which of the following is recommended?
- Allow members of the group to decide for themselves if they wish to follow this plan.
 - Inform patients that future requests for opioids will not be filled.
 - Have security visit these patients when they present.
 - Inform such patients that you believe they are drug addicts and refuse all pain medication.
10. The most common side effects of opioid use are:
- constipation
 - nausea
 - sedation
 - all of the above

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Upon completion of this educational activity, participants should be able to:

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- apply state-of-the-art diagnostic and therapeutic techniques to patients with the particular medical problems discussed in the publication;
- discuss the differential diagnosis of the particular medical problems discussed in the publication;
- explain both the likely and rare complications that may be associated with the particular medical problems discussed in the publication.

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Opioid Use: The ED Conundrum

Drugs with Increasing Involvement in Emergency Department (ED) Visits for Drug Misuse or Abuse: 2004-2010

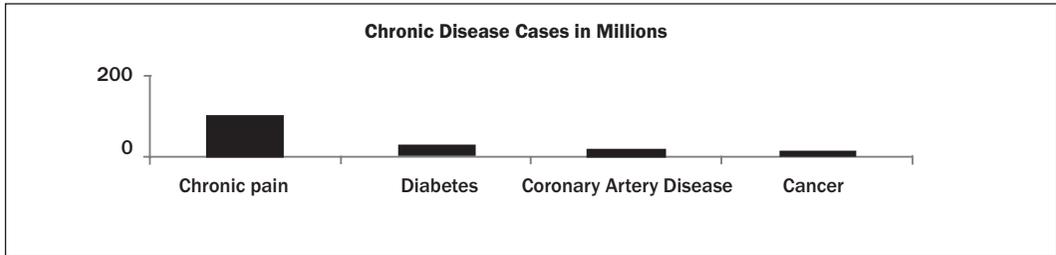
Drug	ED Visits, 2004	ED Visits, 2010	Percent Change 2004 to 2010*
Illicit Drugs	991,640	1,171,024	NC
Marijuana	281,619	461,028	64%
MDMA (Ecstasy)	10,227	21,836	114%
Pharmaceuticals	626,472	1,345,645	115%
Anti-anxiety and insomnia drugs	210,711	472,769	124%
Benzodiazepines	170,471	408,021	139%
Antipsychotics	41,930	69,149	65%
CNS stimulants (e.g., ADHD drugs)	10,656	31,507	196%
Muscle relaxants	29,014	58,783	103%
Pain relievers	282,275	659,969	134%
Narcotic pain relievers	166,338	425,247	156%
Hydrocodone products	46,536	115,739	149%
Oxycodone products	51,418	182,748	255%

*Percent change is measured as difference in the estimated number of visits between 2004 and 2010. Reported changes are significant at the .05 level; "NC" signifies no significant change.
 Source: 2010 SAMHSA Drug Abuse Warning Network (DAWN).

Addiction vs. Pseudoaddiction

Addiction	Pseudoaddiction
Losing prescriptions. Asking for opioid replacements.	May use other available drugs to treat symptoms; excessive acetaminophen or NSAID use, burns from heating pads, Benadryl to sleep, etc.
Calling at night or on weekend for refills/additional meds — wants to get medical provider partner who doesn't know them; may call office to ask who is on for the weekend.	Typically calls during office hours, but could have pain exacerbate on off hours.
Sense of urgency — calls office multiple times in a day > 2 times. May show up at office.	Aggressive complaining about needing more drugs, but typically will only call office 1-2 times.
Obtaining opioids/benzodiazepines from multiple providers (won't tell you) — check state prescription report at initial visit.	May have several providers but WILL tell you who is prescribing what medication for what purpose.
Multiple allergies — explore, can skin test.	Requesting specific drugs — just knows what works from past exposure.
Refuses additional testing for pain complaints.	May be resistant to testing that has been done in past but ultimately will comply; may ask for additional testing.
Caught selling prescription drugs to get drug of choice, or forging prescriptions — changing "n" on prescription. Stealing drugs.	May borrow drugs from family members but will tell prescriber. Will not steal or forge prescription drugs.
Using drug by unprescribed route — snorting or injecting, chewing long-acting agents.	May be anxious about changes in medications or route for fear of being back in pain.
Concurrent abuse of other drugs will show up on tox screen. Other addictions present.	Tox screen negative for other illicit drugs.
Repeatedly escalating dose despite warnings.	Occasionally escalates drug dose but will let you know.
Frequent ED visits WITHOUT telling prescriber.	May visit ED but WILL tell doctor to convince him/her that problems exist.
Making up or embellishing chronic diagnoses; reluctant to give the previous physician's name or number.	Willingly provides paperwork and physician name for other diagnoses.
Exhibits work, family, social deterioration. Unemployed or frequent job changes.	May temporarily not be working unless disabled, but often employed.

Incidence of Chronic Diseases in the United States



Screening Tool Samples for Clinical Use — Websites

Screening Tool	Website
NIDA	http://www.drugabuse.gov/nmassist/
ORT	http://www.partnersagainstpain.com/printouts/Opioid_Risk_Tool.pdf
SOAPP	http://www.algosresearch.org/PracticeTools/DxTestForms/SOAPPTest.pdf
DIRE	http://www.jfponline.com/Pages.asp?AID=8949
COMM	http://nationalpaincentre.mcmaster.ca/documents/comm_sample_watermarked.pdf

Equianalgesic Opioid Table (mg)

Opioid Agonist Available dosage forms	Approximate equianalgesic dose ¹ (The shortest time interval is listed)		Recommended Starting Dose for Moderate-to-Severe Pain (adults and children ≥ 50 kg body weight) ²	
	Oral	Parenteral	Oral	Parenteral
Morphine 15 mg tablet; 10 mg/2.5 mL oral liquid; 2 mg, 4 mg, 8 mg, 10 mg, 15 mg syringes; PCA	30 mg q 3 hrs (around the clock dosing) 60 mg q 3 hrs (single or intermittent dosing)	10 mg q 3 hrs	10 mg q 3 hrs	5 mg q 3 hrs
MS Contin (Morphine, controlled release) 15 mg, 30 mg, 100 mg tablets	90 mg q 12 hrs	Not available	30 mg q 12 hrs	Not available
Codeine 15 mg tablet; 60 mg syringe	180 mg q 3 hrs	130 mg q 3 hrs	60 mg q 3 hrs ³	60 mg q 2 hrs (IM/SQ)
Fentanyl patch (Fentanyl Transdermal) 12 mcg/hr, 25 mcg/hr, 50 mcg/hr, 75 mcg/hr, 100 mcg/hr patch	25 mcg/hr transdermal fentanyl = 12 mg/day parenteral morphine = 36 mg/day oral morphine. Most patients are adequately maintained with q 72 hr transdermal fentanyl. ⁴		Transdermal fentanyl is NOT appropriate for acute pain. It should ONLY be used in patients already receiving opioid therapy and who have demonstrated opioid tolerance, and who require a total daily dose at least equivalent to 25 mcg/hr transdermal fentanyl. ⁵	
Actiq (Fentanyl Transmucosal) 400 mcg, 600 mcg, 800 mcg troche	Not available		Patients should not be on Actiq unless opiate tolerant to a minimum of 25 mcg of transdermal fentanyl or 60 mg of oral morphine per day.	
Sublimaze (Fentanyl) IV, PCA	Not available	0.1 mg	Not available	25 mcg q 2 hrs
Hydrocodone (in Lortab, Norco, Vicodin) Only in combination	30 mg q 3 hrs	Not available	10 mg q 3 hrs	Not available
OxyContin (Oxycodone, controlled release) 10 mg, 20 mg tablet	60 mg q 12 hrs	Not available	10 mg q 12 hrs	Not available
Dilaudid (Hydromorphone) 2 mg tablet; 2 mg/mL injection	7.5 mg q 3 hrs	1.5 mg q 3 hrs	2 mg q 3 hrs	1 mg q 3 hrs
Dolophine (Methadone) 5 mg, 10 mg tablet; 40 mg dispersible tablet; 10 mg/mL oral liquid; 10 mg/mL injection	10 mg q 6 hrs	5 mg q 6 hrs	5 mg q 6 hrs	2.5 mg q 6 hrs
Roxicodone (Oxycodone, also in Percocet, others) 5 mg, 7.5 mg, 10 mg; 5 mg/5 mL oral liquid	20 mg q 3 hrs	Not available	5 mg q 3 hrs	Not available
Ultram (Tramadol) 50 mg	1 tablet has comparable analgesia to 1 Tylenol #3		50 mg q 6 hrs	Not available

¹Published tables vary in the suggested doses that are equianalgesic to morphine. Clinical response is the criterion that must be applied for each patient; titration to clinical responses is necessary. Because there is a not complete cross-tolerance among these drugs, it is usually necessary to use a lower than equianalgesic dose when changing drugs and to retitrate to response.

²Recommended doses do not apply for adult patients with body weight less than 50 kg. Recommended doses do not apply to patients with renal or hepatic insufficiency or other conditions affecting drug metabolism and kinetics.

³Codeine doses > 65 mg often are not appropriate because of diminishing incremental analgesia with increasing nausea, constipation, and other side effects.

⁴Because of the increase in serum fentanyl concentration over the first 24 hours following initial system application, the initial evaluation of the maximum analgesic of transdermal fentanyl cannot be made before 24 hours of wearing. The initial transdermal fentanyl dosage may be increased after 3 days. During the initial application of transdermal fentanyl, patients should use short-acting analgesics as needed until analgesic efficacy with transdermal fentanyl is attained. Thereafter, some patients still may require periodic supplemental doses of other short-acting analgesics for "breakthrough" pain.

⁵Patients who are considered opioid-tolerant are those who have been taking, for a week or longer, at least 60 mg of morphine daily, or at least 30 mg of oral oxycodone daily, or at least 8 mg of oral hydromorphone daily or an equianalgesic dose of another opioid.

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Washington Emergency Department Opioid Prescribing Guidelines

- One medical provider should provide all opioids to treat a patient's chronic pain.
- The administration of intravenous and intramuscular opioids in the ED for the relief of acute exacerbations of chronic pain is discouraged.
- Emergency medical providers should not provide replacement prescriptions for controlled substances that were lost, destroyed, or stolen.
- Emergency medical providers should not provide replacement doses of methadone for patients in a methadone treatment program.
- Long-acting or controlled-release opioids (such as OxyContin®, fentanyl patches, and methadone) should not be prescribed from the ED.
- EDs are encouraged to share the ED visit history of patients with other emergency physicians who are treating the patient using the Emergency Department Information Exchange (EDIE) system.
- Physicians should send patient pain agreements to local EDs and work to include a plan for pain treatment in the ED.
- Prescriptions for controlled substances from the ED should state the patient is required to provide a government issued picture identification (ID) to the pharmacy filling the prescription.
- EDs are encouraged to photograph patients who present for pain-related complaints without a government issued photo ID.
- EDs should coordinate the care of patients who frequently visit the ED using an ED care coordination program.
- EDs should maintain a list of clinics that provide primary care for patients of all payer types.
- EDs should perform screening, brief interventions, and treatment referrals for patients with suspected prescription opiate abuse problems.
- The administration of Demerol® (meperidine) in the ED is discouraged.
- For exacerbations of chronic pain, the emergency medical provider should contact the patient's primary opioid prescriber or pharmacy. The emergency medical provider should only prescribe enough pills to last until the office of the patient's primary opioid prescriber opens.
- Prescriptions for opioid pain medication from the ED for acute injuries, such as fractured bones, in most cases should not exceed 30 pills.
- ED patients should be screened for substance abuse prior to prescribing opioid medication for acute pain.
- The emergency physician is required by law to evaluate an ED patient who reports pain. The law allows the emergency physician to use their clinical judgment when treating pain and does not require the use of opioids.

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