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## What Can Pharmacists Do to Reduce Drug Abuse?

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**Review Paper**

**What can pharmacists do to reduce drug abuse?**

**Abstract**

This review paper provides an overview of the current status of substance abuse, involving both illicit drugs and medically regulated medications. Although global statistics are considered, the primary focus is the substance abuse crisis within the United States. Through review of experimental and observational peer-reviewed articles, this report examines the definition of substance abuse, demographic impacts, and governmental interventions, with particular emphasizes on the role of the pharmacy profession and individual pharmacists in addressing this widespread issue.

**Introduction**

The global concern over drug misuse is evident with the United States leading in drug abuse and its consequences. Extensive laws and initiatives are in place at the federal and state levels to combat this issue. This report focuses on the healthcare sector's role, particularly the pharmacy profession, in addressing and managing this problem.

The American Society of Health-System Pharmacists (ASHP) emphasizes the significant role of pharmacists in substance abuse prevention, education, and support (Baldwin, 2016). ASHP recognizes pharmacists as essential healthcare providers and advocates their active involvement in reducing societal, health system, and professional impacts of substance abuse. Additionally, ASHP supports efforts to rehabilitate healthcare professionals, including pharmacists, facing

mental or physical impairments due to substance abuse (Baldwin, 2016).

The National Institute of Health (NIH) defines drug abuse as the misuse of illegal substances, prescription, and non-prescription drugs for unintended purposes or in excessive quantities (Substance Abuse, n.d.). This misuse can result in various issues such as social, physical, emotional, and occupational problems. Global statistics highlight the prevalence of drug abuse, with the United States consistently ranking highest in cases of abuse, overdose, and fatalities among individuals aged 15 to 64 (Drug Overdose Deaths in the U.S. Top 100,000 Annually, 2021).

Various countries have implemented diverse strategies to combat drug abuse. Portugal's unique approach, decriminalizing drug

abuse, has significantly reduced overdose-related deaths (Frakt, 2020). Other nations have explored alternative strategies,

including drug legalization, legal prosecution, mandatory rehabilitation, and incarceration (Martin, 2023).

## **Discussion**

The United States has invested heavily in combating drug abuse, emphasizing education for children and adolescents. This approach helps identify risk factors and predisposition to drug abuse, allowing for early mitigation (Chakravarthy, 2013).

The medical fields have established rigorous restrictions for drugs categorized as controlled substances. Controlled substances are categorized into schedules, considering their abuse vs medical use. Drugs fall into categories I to V (Drug Scheduling, n.d.), where Category I includes highly abusive, illicit drugs with no medical purpose. Category II is highly regulated and abuse. Categories III to V follow with decreasing abuse potential (see the appendix). The law mandates thorough patient evaluation, justification, and documentation, only by authorized professionals, for prescribing of these medications (Healthcare Administrators: Applying the 2022 CDC Clinical Practice Guideline for Prescribing Opioids for Pain, 2023).

These regulations, coupled with the guidelines established by the Center for Disease Control and Prevention (CDC), aim to contribute to the reduction of overdose deaths. However, in 2020, the United States witnessed more than 100,000 reported overdose fatalities, marking a 28% increase to the year 2020 (Drug Overdose Deaths in the U.S. Top 100,000 Annually, 2021). The CDC has formulated guidelines that govern

the eligibility criteria for patients to receive controlled substances, especially narcotics. These guidelines encompass acute pain, chronic pain, and exceptions for opioid prescriptions (Opioid Prescribing Guideline, 2021) (see appendix). Additionally, the calculation of milligrams of morphine equivalents (MME) for opioid dosages in relation to morphine is crucial (MME Calculator, 2022). The MME/day metric is frequently used to gauge the overdose risk associated with the amount of opioids administered. Calculating the total daily opioid dose helps identify patients who may require closer monitoring, dosage reduction, or opioid tapering, as well as the prescription of naloxone or other measures to mitigate the risk of overdose (see appendix).

Another effective tool in combating substance misuse is the Prescription Drug Monitoring Program (PDMP). This program mandates that all pharmacies report-controlled substances dispensed within 24 hours (PDMP, 2021). Consequently, healthcare providers can access a comprehensive database that tracks dispensing across the United States and its territories (see appendix). The state of Florida has bolstered its efforts against substance misuse at the local level through initiatives such as the "I Save Florida" program. This program empowers civilians by providing them with naloxone, a medication that can save lives in the event of an overdose from prescription painkillers, heroin, or fentanyl. Individuals can

administer naloxone and call 911 for assistance without fear of criminal prosecution or penalties, as per Florida law (FS 893.21(1)).

The Health Care District (HCD) Palm Beach County Systems operates as a government-funded 340B program, delivering healthcare services to uninsured low-income individuals (Response to the Opioid Crisis, n.d.). All services, including medications, are provided free of charge. Notably, they

Pharmacists play a critical role in this context, acting as intermediaries between patients and prescribing professionals. They serve as a filtering mechanism and bear significant responsibility throughout the process. Their in-depth knowledge of processes and regulations allows them to practice their profession responsibly.

Each category of controlled substance has specific requirements for dispensing, empowering pharmacists to evaluate prescriptions for any potential issues (Drug Scheduling, n.d.). If any concerns arise, pharmacists can engage in a dialogue with the prescribing professional to make well-informed decisions. The CDC has also established guidelines for opioid dispensing, which vary based on the type of pain being treated. These guidelines set treatment durations at 3 days for acute pain, 7 days for exceptions to acute pain, and over 7 days for chronic pain (Opioid Prescribing Guideline, 2021). Pharmacists are responsible for analyzing each opioid prescription and determining the appropriate course of treatment. Additionally, the CDC has set guidelines for the maximum allowable daily dosage in milligrams of morphine (MME) (Opioid Use And Misuse Resource Center,

operate a specialized clinic in West Palm Beach, Florida focused on addressing substance addiction, particularly alcohol and opioids, using medications like suboxone and naltrexone. The Florida government has numerous programs, like the HCD, to address the issue of drug abuse throughout Florida. For more information, please check the list of Medication-Assisted Treatment providers in Florida (Treatment and Recovery, 2022).

n.d.). Pharmacists assess the MME/day and have the option to consult with the prescribing physician for dosage adjustments. The PDMP program, accessible through the E-force platform, proves invaluable for pharmacists. This system enables pharmacists to access comprehensive patient information, including past prescriptions of controlled substances. The report offers details such as the patient's location, processing date, sale date, dispensing pharmacy, and physician information, aiding in informed decisions about medication dispensing. Noteworthy red flags include early refills for medications bought without insurance at different pharmacies or instances of "patient shopping" (Prescription Drug Monitoring Programs (PDMPs) , 2021).

Evaluating patient's health background and drug use history is vital for treatment decisions. Ultimately, the pharmacist can identify individuals in need of extra care and engage with them, facilitating discussions with a healthcare provider. This dialogue can encompass vital considerations regarding the use of naloxone injectors and participation in MAT programs. MAT programs are specifically structured to

address addiction by combining medications like buprenorphine, suboxone, and

naltrexone with cognitive behavior therapy (see appendix).

## **Conclusion**

As healthcare professionals, it is crucial to stay informed and be at the forefront of all relevant initiatives, regulations, and laws to positively impact society's health.

Pharmacists hold a pivotal role in this process, serving as a crucial link between prescribers and patients. They must always prioritize professional judgment, keeping the patient's well-being at the forefront, regardless of company policies. Moreover, their allegiance to public health is expressed in the pharmacist oath. This commitment guides them to apply their knowledge and skills for the betterment of those they serve (Oath of a Pharmacist, n.d.). Together, these steps lead to a brighter future in the field of healthcare.

## Appendix

### Controlled Substance

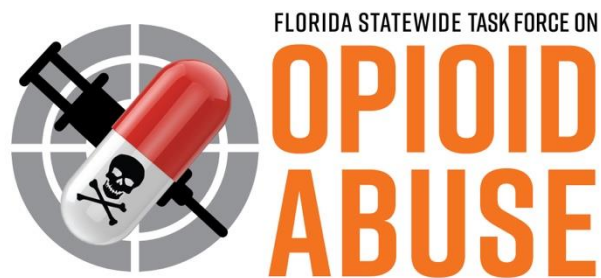
For more information visit: <https://www.dea.gov/drug-information/drug-scheduling>

HOW DRUGS ARE CLASSIFIED IN THE US		
SCHEDULE	DESCRIPTION	EXAMPLES
Schedule 1	Drugs with no currently accepted medical use and a high potential for abuse. They are the most dangerous drugs of all the drug schedules with potentially severe psychological or physical dependence.	<ul style="list-style-type: none"><li>- Heroin</li><li>- Lysergic acid diethylamide (LSD)</li><li>- Marijuana (Cannabis)</li><li>- Methylendioxyamphetamines (Ecstasy)</li><li>- Methaqualone</li><li>- Peyote</li></ul>
Schedule 2	Drugs with a high potential for abuse, with use potentially leading to severe psychological or physical dependence. These drugs are also considered dangerous.	<ul style="list-style-type: none"><li>- Combination products with less than 15mg of hydrocodone per dosage unit (Vicodin)</li><li>- Cocaine</li><li>- methamphetamine</li><li>- Methadone</li><li>- Hydromorphone (Dilaudid)</li><li>- Meperidine (Demerol)</li><li>- Oxycodone (OxyContin)</li><li>- Fentanyl</li><li>- Dexedrine</li><li>- Adderall</li><li>- Ritalin</li></ul>
Schedule 3	Drugs with a moderate to low potential for physical and psychological dependence. Schedule 3 drugs abuse potential is less than Schedule 1 and Schedule 2 drugs but more than Schedule 4.	<ul style="list-style-type: none"><li>- Products containing less than 90mg of codeine per dosage unit (Tylenol and codeine)</li><li>- Ketamine</li><li>- Anabolic steroids</li><li>- Testosterone</li></ul>
Schedule 4	Drugs with a low potential for abuse and low risk of dependence.	<ul style="list-style-type: none"><li>- Xanax</li><li>- Soma</li><li>- Darvon</li><li>- Darvocet</li><li>- Valium</li><li>- Ativan</li><li>- Talwin</li><li>- Ambien</li><li>- Tramadol</li></ul>
Schedule 5	Drugs with lower potential for abuse than Schedule 4 and consist of preparations containing limited quantities of certain narcotics. Schedule 5 drugs are generally used for antidiarrheal, antitussive, and analgesic purposes.	<ul style="list-style-type: none"><li>- Cough preparations with less than 200mg of codeine per 100ml (Robitussin AC)</li><li>- Lomotil</li><li>- Motofen</li><li>- Lyrica</li><li>- Parepectolin</li></ul>

SOURCE: Drug Enforcement Administration

### Opioids

For more information visit: <https://www.cdc.gov/opioids/healthcare-professionals/index.html>



## Morphine Milligrams Equivalent (MME)

For more information visit: <https://www.mdcalc.com/calc/10170/morphine-milligram-equivalents-mme-calculator>

# MME Calculation



Calculating morphine milligram equivalents (MME)

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

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

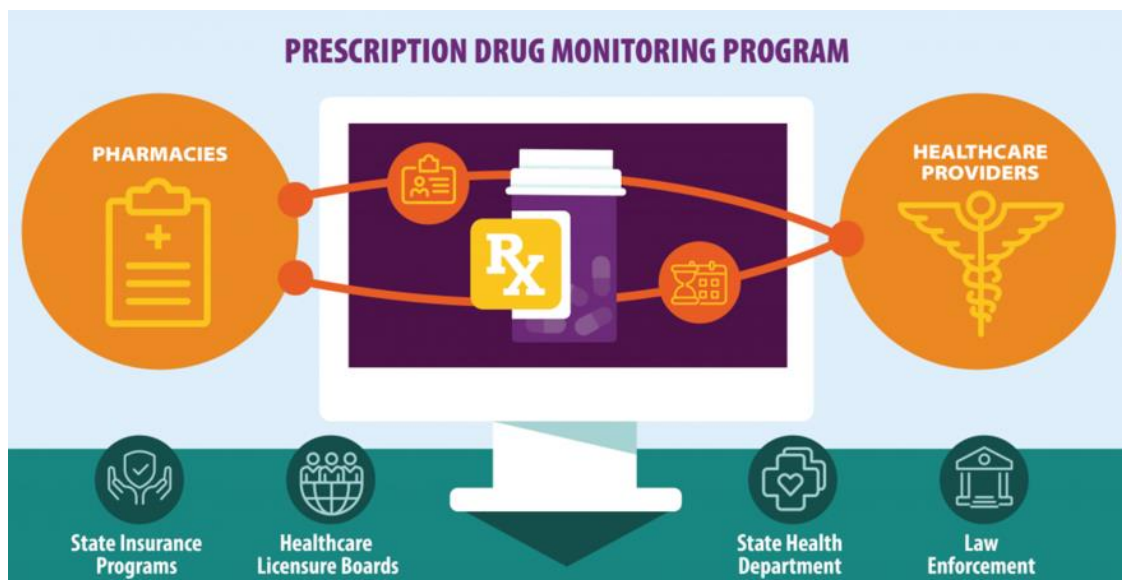
### Sample Case

Your patient is a 45-year-old man who is taking oxymorphone 10 mg 4 times a day for chronic pain. You have determined he is an appropriate candidate for a long-acting regimen and decide to convert him to extended release oxycodone.

1. Total daily dose of oxymorphone → 10 mg X 4 times /d = 40 mg/d
  2. Convert to MMEs (oxymorphone conversion factor = 3) → 40 X 3 = 120 MME
  3. Determine MMEs of oxycodone (oxycodone conversion factor = 1.5) → 120/1.5 = 80 mg/d
  4. Decrease dose by 25% → 25% of 80 = 20 → 80 - 20 = 60
  5. Divide by interval (q 12 hours) → 60/2 = 30
- The starting dose of extended release oxycodone is 30 mg q 12h.

## Prescription Drug Monitoring Program (PDMP)

For more information visit: <https://www.cdc.gov/drugoverdose/pdmp/index.html>



## **I Save Florida**

For more information visit: <https://isavefl.com/find-naloxone.shtml>



## **MAT Program**

For more information visit: <https://www.hcdpbc.org/>



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