



Medications Used to Treat Opioid Overdose and Maintenance Treatment Modalities

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INTRODUCTION

In 2016, more than 63,600 people lost their lives to a drug overdose in the United States. The Centers for Disease Control and Prevention (CDC) data collected in 2016 reported that opioids were involved in more than 67% or 42,249 of all overdose deaths—rates that have more than tripled since the start of the new millennium. These are the highest reported overdose mortality rates ever reported, and drug overdose is the leading cause of death in people under the age of 50. The most common drug type involved in fatalities were synthetic opioid medications other than methadone, most commonly fentanyl. The fentanyl-related death rate doubled between 2015 and 2016, far exceeding heroin- and prescription opioid-related death rates that year.¹

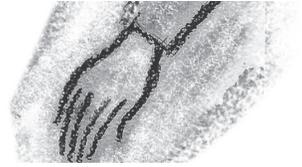
CURRENT EFFORTS TO CURB DANGERS AND RISKS

Prescription drug monitoring programs (PDMPs) have been developed and are accessible in 49 states to help providers and pharmacists identify individuals who may be utilizing multiple prescribers and pharmacies to obtain controlled substances. Although touted as a method to help reduce opioid overdose deaths, diversion, and opioid misuse, more data are needed to truly determine the utility and effectiveness of these programs.² The systems also need to be more user-friendly and integrated into existing pharmacy and clinical systems to increase their use. Several federal grants are funding these efforts. One recent systematic review of available PDMP observation studies showed a trend toward fewer prescription opioid overdose deaths associated with PDMP use, while some studies showed increased heroin deaths after PDMP implementation.³ The CDC has also developed opioid prescribing guidelines to help providers curb excessive or unnecessary prescribing of these products.⁴ However, these guidelines are targeted at changing rates of prescribing and do not fully address treatment of patients who may already have these medications in their possession or who are currently maintained on dangerous combinations of these medications.

Given that pharmacists are involved in both the dispensing of these medications and in providing patient education and counseling, they are uniquely situated to help educate patients about dangerous medication combinations and ways to avoid unintentional harms related to opioid use. In addition to utilization of the PDMPs mentioned above, pharmacists in many states may also dispense naloxone by utilizing standing orders or collaborative practice agreements with medical providers, state protocol agreements, or through direct prescriptive authority.^{5,6} Pharmacists can also provide overdose prevention and response education by promoting proper administration technique of opioid-reversal agents, providing education regarding the signs and symptoms of an acute overdose, and encouraging patients and family members to be up-to-date on rescue breathing and chest compressions, should their loved one be affected by an opioid overdose and in urgent need of treatment.

PRACTICE POINT

Pharmacists can help prevent unintentional opioid harm by utilizing PDMPs, dispensing naloxone to at-risk patients, and providing overdose response education for both patients and family members.



CONTRIBUTING FACTORS IN OPIOID OVERDOSE DEATHS

Opioid overdose deaths and emergency department visits for nonfatal drug overdoses occur more frequently when they are combined with other central nervous system (CNS) depressants such as alcohol or benzodiazepines.⁷ On August 31, 2016, the Food and Drug Administration (FDA) required addition of black box warnings to the safety labeling of all approved opioid and benzodiazepine products and including this safety information in patient medication guides.⁸ Because of the significant evidence for death in both groups—opioid users who take benzodiazepines and vice versa—the FDA agreed with the previous CDC recommendations⁴ to prescribe these combinations only as a last resort for patients who still experience pain and anxiety in spite of treatment attempts with safer medication combinations and nonpharmacologic interventions. In these cases, the FDA and CDC recommend using these medication combinations in the smallest doses and for the shortest duration of therapy possible.⁷ According to an analysis of a large insurer dataset, the prevalence of co-prescribed benzodiazepines and opioids has increased 33% between 2002 and 2014, with most combinations co-prescribed by the same provider.⁹ Due to risks of additive respiratory depression and sedation, this combination of medications can be lethal for patients.

Other risk factors for overdose may include the type of opioid medication prescribed, dose used, or duration of treatment. Fentanyl has been shown to increase overdose mortality due to its quick onset and potency, in addition to the increased