

Urine Drug Testing for Pain Management

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KEYWORDS

• Opioids • Pain management • Drug compliance • Urine drug testing

KEY POINTS

- Opioid use is increasing producing an epidemic of unintentional drug poisoning deaths.
- Clinical guidelines for managing patients on chronic opioid (noncancer) pain therapy have been developed.
- There has been an increase in drug testing associated with chronic pain therapy and laboratories have been asked to assist in identifying compliant patients.
- Proper interpretation of positive/negative opiate results must take into consideration the metabolic pathways of opiates and assay limitations.
- Laboratorians are ready to help with testing strategies and interpretation of results.

INTRODUCTION

There is an epidemic of prescription drug abuse in the United States, which has created an increased burden on clinical toxicology laboratories and those who oversee drug testing. According to the 2009 report of the Drug Abuse Warning Network (DAWN), there were approximately 4.5 million drug-related visits to the emergency department, and the report revealed that more than 50% of the visits involved the nonmedical use of pharmaceuticals.¹ In this report, the nonmedical use of pharmaceuticals included (1) taking more than the prescribed dose of a prescription pharmaceutical, (2) taking more than the recommended dose of an over-the-counter pharmaceutical or supplement, (3) taking a pharmaceutical prescribed for another individual, (4) deliberate poisoning with a pharmaceutical by another person, and (5) documented misuse or abuse of a prescription drug, an over-the-counter pharmaceutical, or a dietary supplement.

Further scrutiny of the DAWN data revealed that almost 39% of the nonmedical use of pharmaceuticals involved opioids and 29% involved benzodiazepines (**Fig. 1**).

The authors have nothing to disclose.

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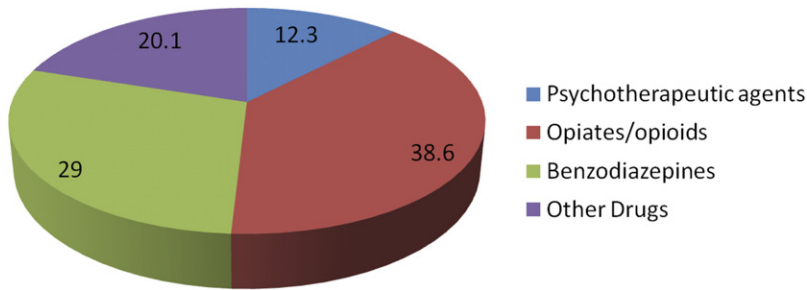


Fig. 1. Nonmedical use of pharmaceuticals. DAWN 2009. Percentage ED visits involving nonmedical use of pharmaceuticals. (From U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. The DAWN Report: highlights of the 2009 Drug Abuse Warning Network [DAWN] findings on drug-related emergency department visits. Rockville [MD]: Substance Abuse and Mental Health Services Administration; 2010. Available at: <http://oas.samhsa.gov/2k10/dawn034/edhighlights.htm>. Accessed June 15, 2012.)

Between 2004 and 2009 there was a particularly dramatic change in nonmedical use of opioids, with an increase to approximately 141%, and a 118% increase in the nonmedical use of benzodiazepines (Fig. 2).¹

As a result of this increase in nonmedical use of prescription drugs there has been a concomitant rise in unintentional drug overdose deaths. In the early 1970s there were approximately 2 deaths per hundred thousand population and by 2007 the number was approaching almost 10 deaths per hundred thousand.² It is not surprising that there is such an increase in prescription drug-related deaths given that

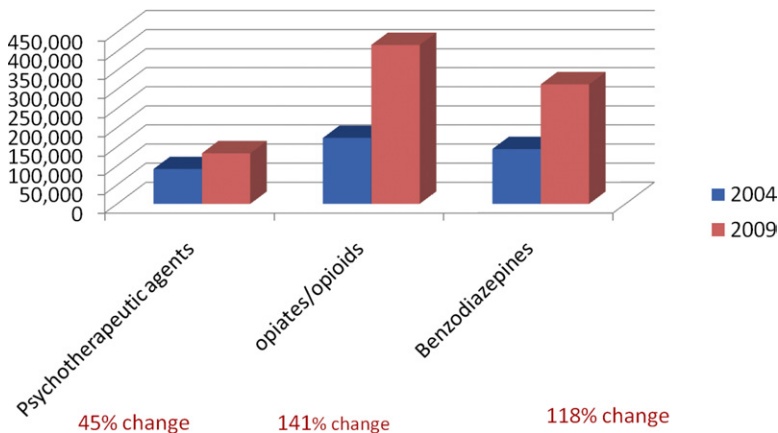


Fig. 2. Nonmedical use of pharmaceutical (ED visits DAWN 2009) Percent change from 2004 to 2009. (From U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. The DAWN Report: highlights of the 2009 Drug Abuse Warning Network [DAWN] findings on drug-related emergency department visits. Rockville [MD]: Substance Abuse and Mental Health Services Administration; 2010. Available at: <http://oas.samhsa.gov/2k10/dawn034/edhighlights.htm>. Accessed June 15, 2012.)

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