

RADARS[®]

S Y S T E M

Title:	Abuse and Diversion of Immediate-Release Prescription Opioids: 30 Months of Data from the RADARS [®] System
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Abstract:

Background: Opioid analgesic diversion and abuse has reached epidemic levels. The Researched Abuse, Diversion, and Addiction-Related Surveillance (RADARS[®]) System collects product- and geographically-specific data about inappropriate opioid use.

Methods: Data from the RADARS System Poison Center, Drug Diversion, Opioid Treatment Program, Survey of Key Informants' Patients, and College Survey programs (Jan 2010 – June 2012) were used to measure rates of diversion and abuse for immediate release formulations of hydrocodone, morphine, oxycodone, oxymorphone, and tapentadol. Poison Center program "intentional abuse" cases were analyzed. Average rates were calculated using population (events per 100,000 persons) and unique recipients of a dispensed drug (events per 1,000 URDD). Population rates estimate the public health burden associated with the abuse or diversion of each drug. URDD rates estimate the risk for individuals by taking into account the number of patients who have had a prescription filled. Negative binomial regression was used to estimate average rates, confidence intervals, and trends over time.

Results: Abuse and diversion rates were generally stable over time. On a population basis, hydrocodone had the greatest rates in all programs. Tapentadol had the least population rates in all programs except the Poison Center program, in which the tapentadol and oxymorphone rates were indistinguishable. When compared to the number of patients filling prescriptions (URDD), oxymorphone had the greatest rates in all programs. URDD rates were least for morphine in the Poison Center program, tapentadol in the Drug Diversion program, oxycodone in the Opioid Treatment and Survey of Key Informants' Patients programs, and hydrocodone in the College Survey program.

Conclusions: Population-level indicators of abuse and diversion show the greatest public health impact from hydrocodone and the least for tapentadol.

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