

RADARS[®]

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| Title: | Intentional Exposures to Opioids Reported by Health Care Workers |
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Abstract:

Background: The RADARS[®] System Poison Center (PC) Program collects data on intentional exposures to specific opioid drug classes. A subset and component of the PC Program is the Impaired Health Care Worker (IHCW) Program, which records instances of intentional exposures by those who work in a health care setting. This study examines frequency and rate of opioid exposures in the IHCW Program.

Methods: Trained reviewers read case notes from participating PCs to verify reason for drug exposure and product coding. During this review, each intentional exposure with case notes that indicated the exposed individual was an IHCW was flagged to be included in the IHCW data set. Intentional exposures included cases coded as suspected suicide, misuse, abuse, withdrawal, and intentional unknown. Total intentional exposures of oxycodone, fentanyl, hydrocodone, hydromorphone, morphine, methadone, buprenorphine and tramadol from 1Q08 - 4Q12 were summed for IHCWs and across intentional exposure cases involving individuals age 18 years or older. The proportion of exposures involving IHCWs was calculated for each drug and divided by the total number of adult exposures.

Results: There were 104 intentional exposures involving IHCWs between 2008 and 2012, making up 0.06% of all intentional exposures. As shown in the table below, hydrocodone accounted for the majority of all IHCW exposures. The drug with the highest proportion of exposures was hydromorphone (1.71/1,000 adult exposures), followed by morphine (1.33/1,000 adult exposures) and then fentanyl (0.95/1,000 adult exposures). The drug with the fewest number of IHCW exposures was methadone (0.09/1,000 adult exposures).

Conclusion: Results suggest that health care workers represent less than 0.1% of intentional exposures reported to PCs. The majority of IHCW exposures were for hydrocodone, tramadol, or oxycodone (similar to the non-IHCW population). Drugs with the highest proportion of IHCW exposures were hydromorphone, morphine, and fentanyl. These data are limited due to bias of spontaneous reporting of health care worker status. Health care worker status is not specifically asked for all adult exposures.

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| Drug | Number of IHCW exposures | Percent of IHCW exposures | IHCW exposures per 1,000 adult exposures |
|---------------|--------------------------|---------------------------|--|
| Hydrocodone | 56 | 53.85% | 0.83 |
| Tramadol | 12 | 11.54% | 0.47 |
| Oxycodone | 12 | 11.54% | 0.31 |
| Morphine | 10 | 9.62% | 1.33 |
| Hydromorphone | 5 | 4.81% | 1.71 |
| Fentanyl | 4 | 3.85% | 0.95 |
| Buprenorphine | 4 | 3.85% | 0.79 |
| Methadone | 1 | 0.96% | 0.09 |