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S Y S T E M

Title:	Administration routes involved in non-medical use of long-acting opioids in the RADARS [®] System College Survey and Poison Center Programs
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Abstract:

Background: Among young-adult, non-medical opioid users, experimentation with alternate administration routes is frequently reported and used as a proxy for assessing escalation toward increasing use and drug dependence. The objective was to classify administration routes among college-aged non-medical users of longacting opioids (LAO) across two data collection systems.

Methods: College students completed an online questionnaire (December 2009) for the RADARS System College Survey Program (CS), and were sampled equally from four US regions. Respondents answered questions about non-medical use and administration routes. The RADARS System Poison Center Program (PC) collects quality reviewed data weekly on acute drug intentional exposures from 48 of 60 US Poison Centers. CS and PC LAO cases (age 18–23) were identified. Of 1,936 CS cases, 2% (n = 41) involved at least one LAO. Acute LAO cases in CS were defined as those reporting past-month use less than or equal to 4 days (n = 31) and were compared to PC LAO intentional exposures (n = 264) as PC cases are acute in nature.

Results: Forty-two percent of CS LAO cases reported two routes, and 34% reported three or more (n = 14). CS respondents can report multiple routes; swallowing whole (66% of cases), chewing (71%), inhalation (61%) and injection (24%). In PC LAO acute intentional exposures, only 0.8% involved two or more routes; the majority of cases involved swallowing whole (56%), with chewing, inhalation and injection comprising 16%. An independent samples Mann–Whitney U test revealed a significant difference between CS and PC LAO cases for the number of administration routes involved in acute cases ($p < 0.001$).

Conclusions: Larger percentages of alternate administration routes (chewing, inhaling and injecting) reported for CS LAO cases suggests that CS may better capture experimental aberrant non-medical LAO use behaviors in this age group. A significant difference between the number of administration routes reported in CS and PC suggest these programs capture opioid use behaviors differently. An examination of both datasets provides better understanding of these behaviors than any one dataset alone.