

RADARS[®]

S Y S T E M

Title:	Prescription opioid and stimulant use among pregnant women: surveillance by poison control centers participating in the RADARS [®] System
Authors:	Fischer LJ, Davis JM, Bucher-Bartelson B, Poppish L, Dart RC, RADARS [®] System Poison Center Group
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Abstract:

Background: Concern is being raised about prescription drug use among pregnant women. The Florida Agency for Health Care Administration recently reported a 388% increase in newborns in Florida being treated for withdrawal from prescription painkillers between 2006 and 2010. Similar trends have been reported in other states such as Maine and Tennessee. The purpose of the current study was to compare characteristics of pregnant and non-pregnant women who have a prescription opioid or stimulant exposure reported to Poison Centers (PCs) participating in the RADARS[®] System.

Methods: The RADARS System Poison Center Program collects drug exposure cases involving prescription opioids and/or stimulants, as well as demographics including pregnancy, from 48 of 57 PCs nationally. Exposure cases analyzed in this study were collected from 1Q2011-3Q2011 and restricted to ages 13-49 years. For continuous variables, t-tests were used to compare means for the pregnant and non-pregnant groups. For categorical variables, chi-square tests were used to compare proportions.

Results: Of the 17917 cases analyzed, 195 (1.11%) were pregnant women and 17722 (98.9%) were non-pregnant women. Pregnant women had a lower proportion of intentional exposures, including suspected suicide, misuse, abuse, withdrawal, and intentional unknown (70.3% vs. 76.8%) compared to non-pregnant women ($c^2 = 14.1$ $df=2$ $p=0.0009$). For chronicity of exposure (acute, acute-on-chronic, chronic, and unknown), a higher proportion of pregnant women had acute exposures (74.9% vs. 64.0%) compared to non-pregnant women ($c^2 = 20.1$ $df=3$ $p=0.0002$). On average, pregnant women were 4.3 years younger (95%CI 2.9-10.5 $p<.001$) than non-pregnant women (26.0 vs. 30.3 years). Pregnant women also had fewer moderate, major, and death medical outcomes (32.8% vs. 39.4%) ($c^2 = 3.5$ $df=1$ $p=0.0619$). There was no significant difference of drug class between groups. For example, methadone exposures were similar in both pregnant and non-pregnant women (5.1% and 3.5%). Furthermore, the frequency of route mentions, such as crush/chew (2.1% and 2.3%), were similar between pregnant and non-pregnant women.

Conclusion: Information gathered by PCs suggest women who are pregnant may have better medical outcomes potentially due to a lower proportion of intentional exposures. However, the type of medication and route of administration suggests a level of abuse that is comparable between non-pregnant and pregnant women. Small cell sizes for pregnant women and lack of data on the babies born to these mothers limit some conclusions of this study. The public health impact on both mother and child warrant continued research.