4-digit Session #: 2089.0

Reductions in the percentage of buprenorphine products dispensed in child-resistant unit-dose packaging associated with increases in accidental pediatric exposures

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Current Study

Previous observational studies reported that dispensing buprenorphine in child-resistant unit-dose packaging (UDP) rather than child-resistant multi-dose bottles (MDB) is associated with reductions in pediatric exposures. We examined the association between the percentage of buprenorphine prescriptions dispensed in child-resistant MDB with the number of accidental pediatric exposures by state and year-quarter.

Key Findings

The rate of **accidental pediatric exposures** per prescription dispensed where greater in areas where the **percentage of buprenorphine products dispensed in MDB was higher**

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Introduction

- Between 2011 and 2018 buprenorphine prescriptions increased twofold, indicating greater access to an effective treatment for opioid addiction.
- An unintended consequence has been a rise in accidental pediatric exposures to buprenorphine.
- Dispensing buprenorphine in child-resistant UDP rather than MDB is associated with reductions in pediatric exposures.

Methods

- Unintentional general exposures (age <6 years) involving buprenorphine between 1st quarter 2016 and 3rd quarter 2019 from the Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS®) System Poison Center Program were analyzed.
- Generalized estimating equations (GEE) assuming a Poisson Distribution and autoregressive correlation structure were used to account for within state correlations over time.

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Results

- The number of accidental pediatric exposures reported to participating poison centers increased 20% from 1st quarter 2016 to 3rd quarter 2019; the percentage of buprenorphine products dispensed in MDB increased from 29% to 40%.
- Increases in the percentage of prescriptions dispensed in MDB was associated with significant increases in the rate of pediatric exposures per buprenorphine prescription (β=0.99, 95% CI: 0.14 to 1.84, p=0.023).
- A correlation between buprenorphine packaging and rate of unintentional pediatric exposures was observed.

Conclusions

Further research is needed to determine if dispensing buprenorphine products in UDP could significantly reduce accidental pediatric exposures, particularly in examining differences in the risk and subsequent harms of exposure by formulation (sublingual film versus sublingual tablets).

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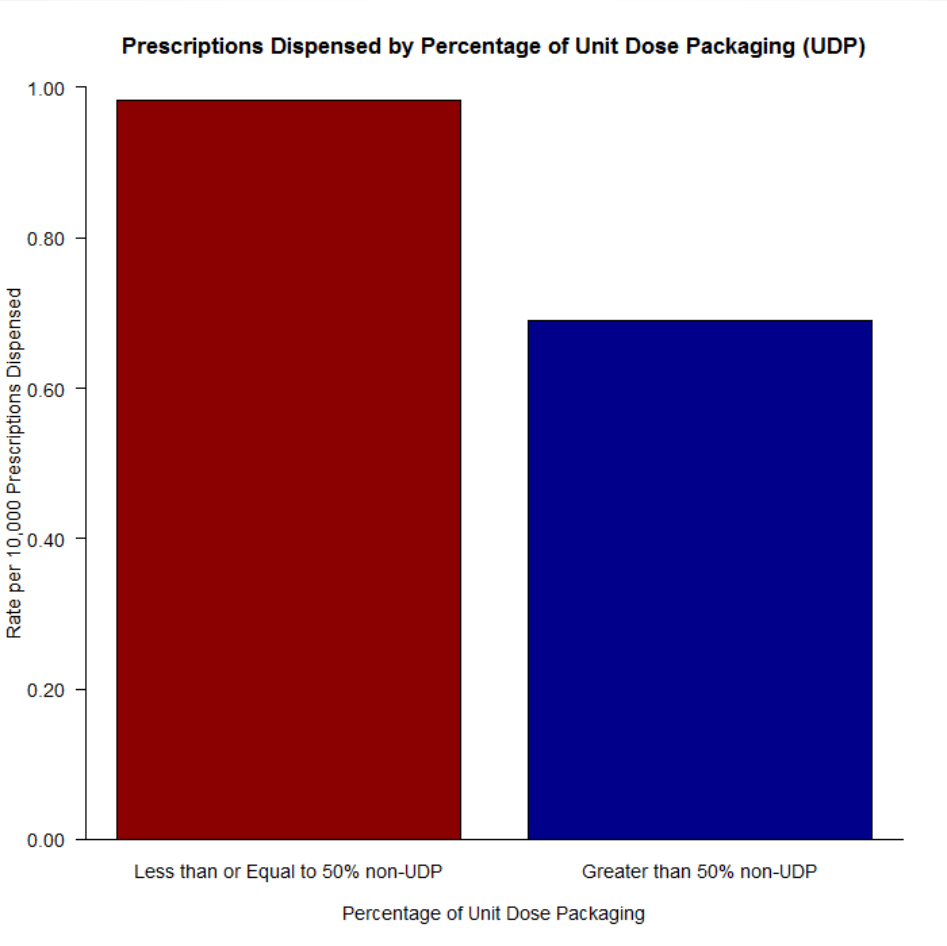
Results



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