

Abuse of Tapentadol Compared to Other Atypical Opioids among Individuals Entering Treatment for Opioid Use Disorders

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INTRODUCTION

- Tapentadol is a centrally acting atypical opioid thought to have dual mechanisms of action: mu-receptor agonism and inhibition of norepinephrine reuptake
- Tapentadol is a schedule II-controlled substance, more restrictive than buprenorphine (schedule III) and tramadol (schedule IV) which are other atypical opioids used to treat pain,
- This study compares the abuse of tapentadol to other atypical opioids among individuals entering treatment for opioid use disorder.

METHODS

- Data collected from 2019 from the Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS[®]) System Treatment Center Programs Combined were used
- Respondents entering treatment for opioid use disorders (OUD) completed a questionnaire asking about past month abuse of prescription medications
- Prescriptions dispensed estimates were obtained from the IQVIA[®] (Danbury, CT) US-Based Longitudinal Prescription Data
- Unadjusted and prescriptions-dispensed adjusted odds ratios (OR) were calculated using logistic regression with each tapentadol drug group as reference category
- Odds ratios were also adjusted for national prescriptions dispensed by including estimates as an offset in logistic regression models
- Tapentadol, NUCYNTA[®], and NUCYNTA[®] ER were compared to two groups: buprenorphine intended for the treatment of pain (buprenorphine for pain) opioids, and tramadol (Table 1)

DISCLOSURE

The RADARS[®] System is supported by subscriptions from pharmaceutical manufacturers, government and non-government agencies for surveillance, research and reporting services. RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado. Denver Health retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection nor do they have access to the raw data. NUCYNTA[®] and NUCYNTA[®] ER are registered trademarks of Collegium Pharmaceutical, the sponsor of this research.

RESULTS

Table 1. Prescriptions Dispensed by Drug Group, 2019

| Drug Group | Prescriptions Dispensed | Percentage within Drug Group |
|-------------------------------|-------------------------|------------------------------|
| Tapentadol | 501,485 | 100.0% |
| NUCYNTA [®] | 296,561 | 59.1% |
| NUCYNTA [®] ER | 204,924 | 40.9% |
| Buprenorphine for Pain | 872,275 | 100.0% |
| Transdermal Patches | 538,447 | 61.7% |
| Buccal Film | 333,828 | 38.3% |
| Tramadol | 30,363,507 | 100.0% |
| Immediate release | 29,816,754 | 98.2% |
| Extended Release | 546,753 | 1.8% |

Figure 1: Natural log of unadjusted abuse odds ratios compared to tapentadol, by drug group, 2019

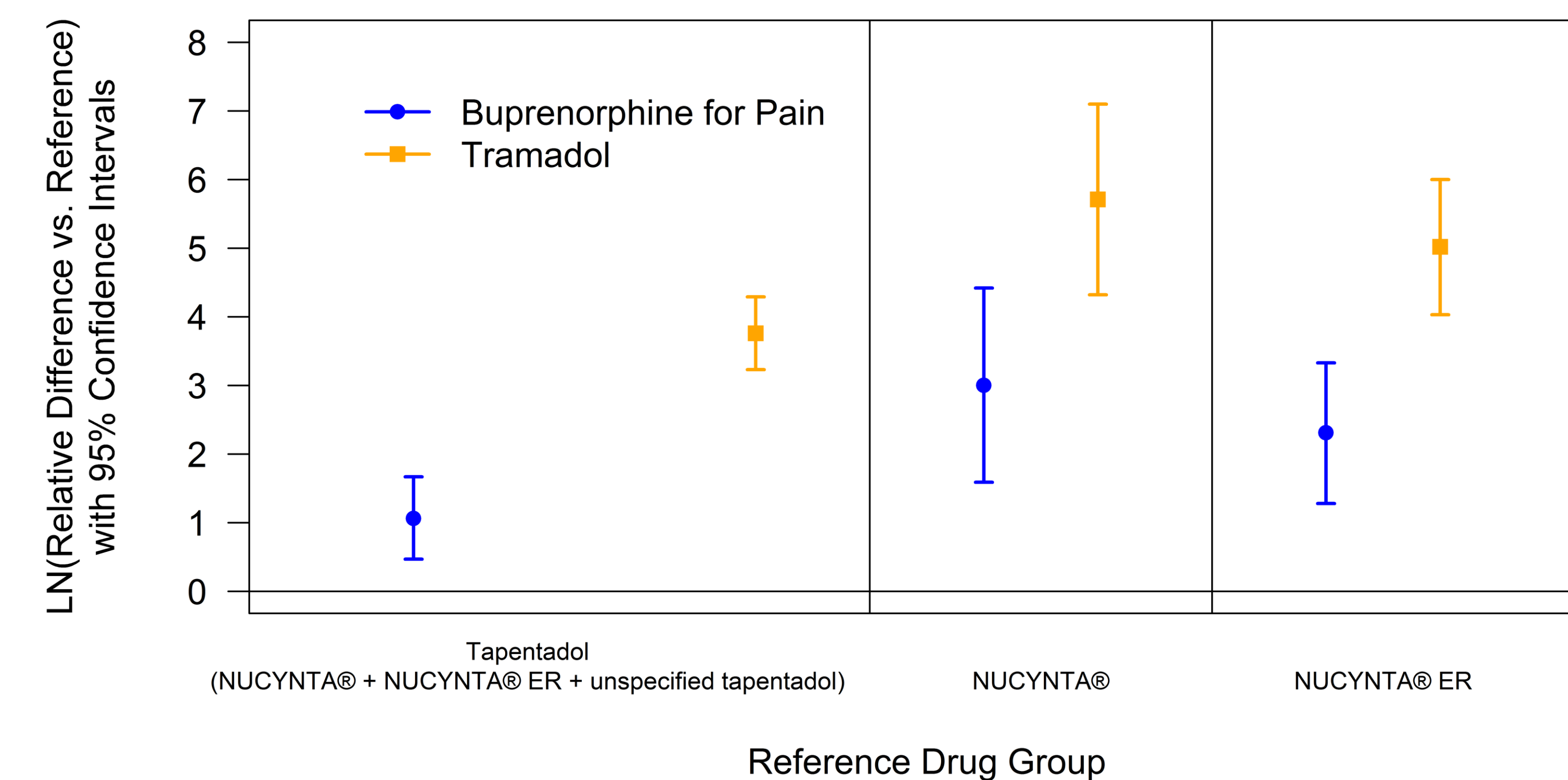
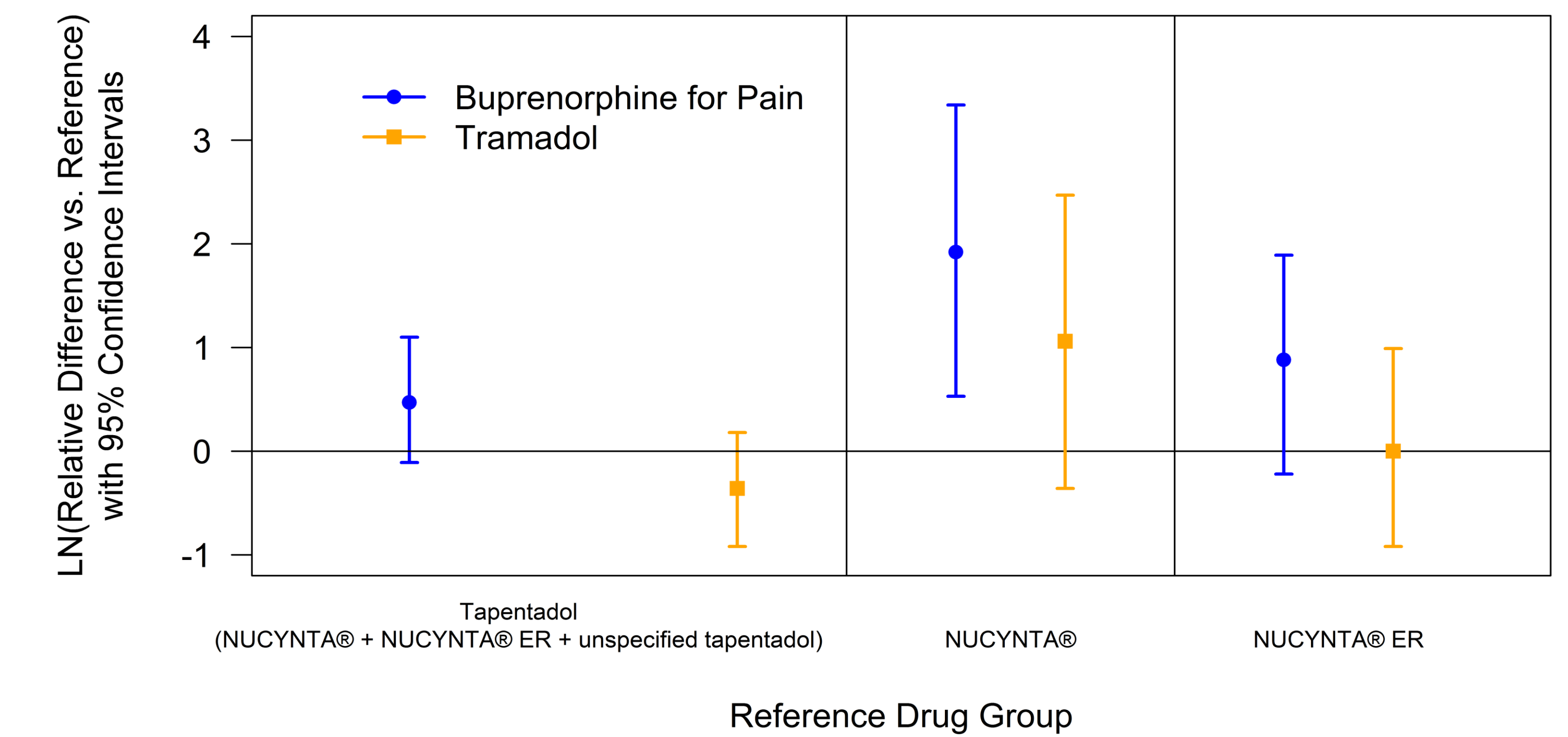


Figure 2: Natural log of prescription-adjusted abuse odds ratios compared to tapentadol, by drug group, 2019



KEY RESULTS

- Of the 6,987 valid surveys, tapentadol was endorsed on 14, NUCYNTA on 2, NUCYNTA ER on 4
- Most respondents who endorsed tapentadol did not identify either of the two tapentadol brands available in the United States
- Relative to any tapentadol, the odds of abuse of buprenorphine for pain and the odds of tramadol abuse were greater (Figure 1)
- After adjusting for prescriptions dispensed, the differences in odds of abuse were not statistically significant (Figure 2)

CONCLUSIONS

- Though tapentadol scheduling suggests greater abuse potential than other atypical opioids, among respondents entering treatment for OUD we observed fewer tapentadol abuse cases than for other atypical opioids with no significant differences after adjusting for drug availability
- Tapentadol could provide effective pain management with a lower abuse potential

LIMITATIONS

- Abuse estimates are based on participant self-report
- Results are based on one year and patterns may change over time