

The Effect of a Non-Opioid Order Set on Opioid Use in a Community Hospital Emergency Department

Amy T. Nguyen¹, Hillary Tacadena¹, Zaynab Khatoun¹, Richard Robertson, PharmD²

The University of Arizona College of Pharmacy¹, Tucson Medical Center²



Pharmacy



INTRODUCTION

Cumulative morphine milligram equivalents (MME) over 700 MME on a patient's first prescription is a risk factor for becoming a chronic user of opioids.¹ Opioid prescribing in the emergency department (ED) can be influenced by resources available to providers. Duncan et al. implemented a non-opioid order set that reduced opioids in the ED by more than 20% and MME by 25% without compromising patient pain control or satisfaction.² Our study analyzes the impact of a non-opioid order set in a community emergency department.

OBJECTIVE

Analyze the effect of a non-opioid order set on average MME prescribed per provider and per patient, as well as average MME per discharge prescription.

METHODS

- Retrospective data was collected on all opioid medication orders during ED visit and discharge
- Data was from two time frames- before and after non-opioid order set implementation (4/1/19-9/30/19 and 4/1/20-9/30/20)
- Subjects: Providers who ordered opioids in the ED or prescribed opioid prescriptions upon discharge
- Patient population: Adults aged greater than or equal to 18 who received opioid analgesics while visiting the ED
- MME calculated by strength per unit x number of units x MME conversion factor³
- Data was analyzed via 2-sample t-test assuming unequal variances used with alpha level 0.05

RESULTS

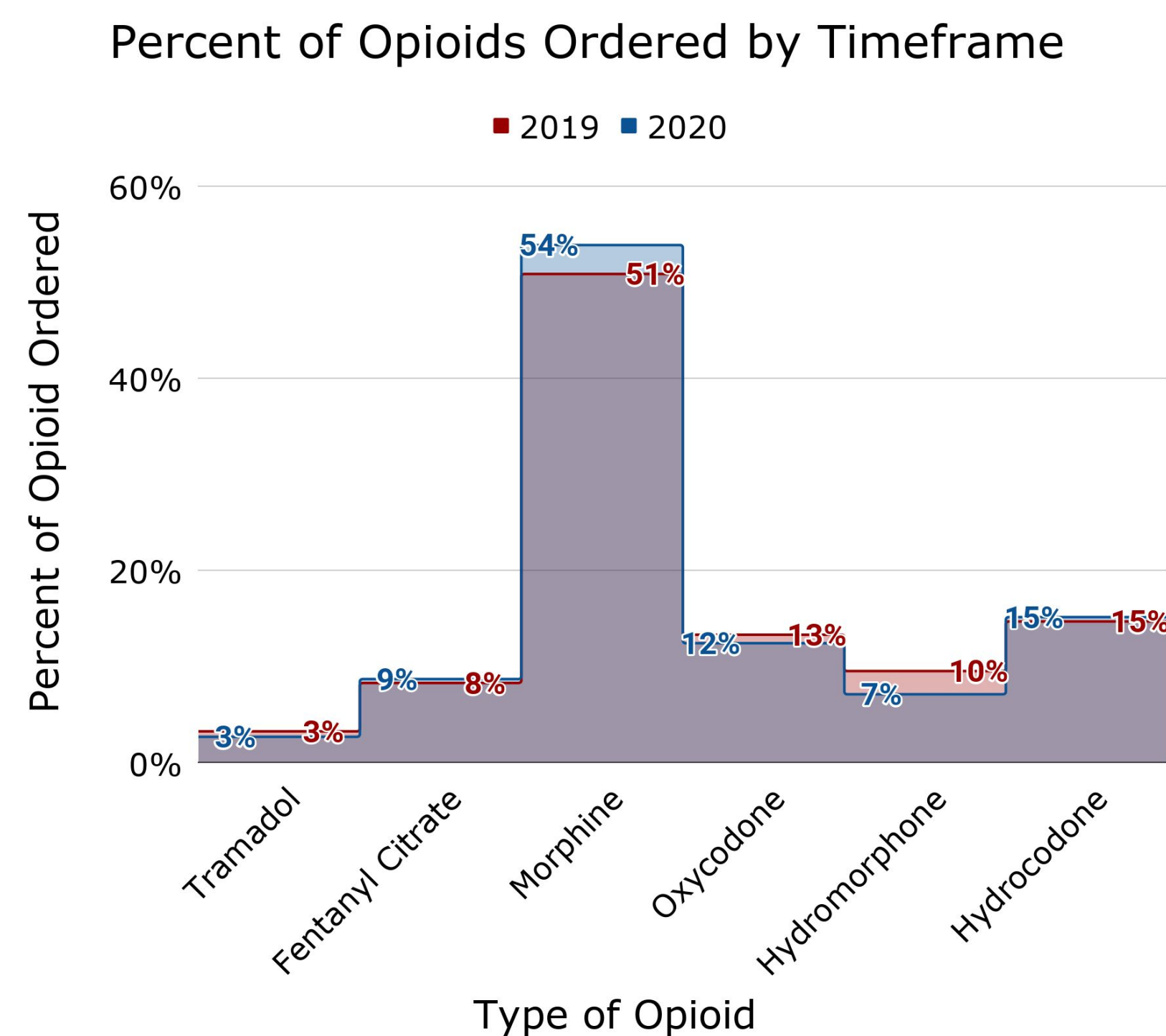


Figure 1. Types of opioids ordered in 2019 and 2020

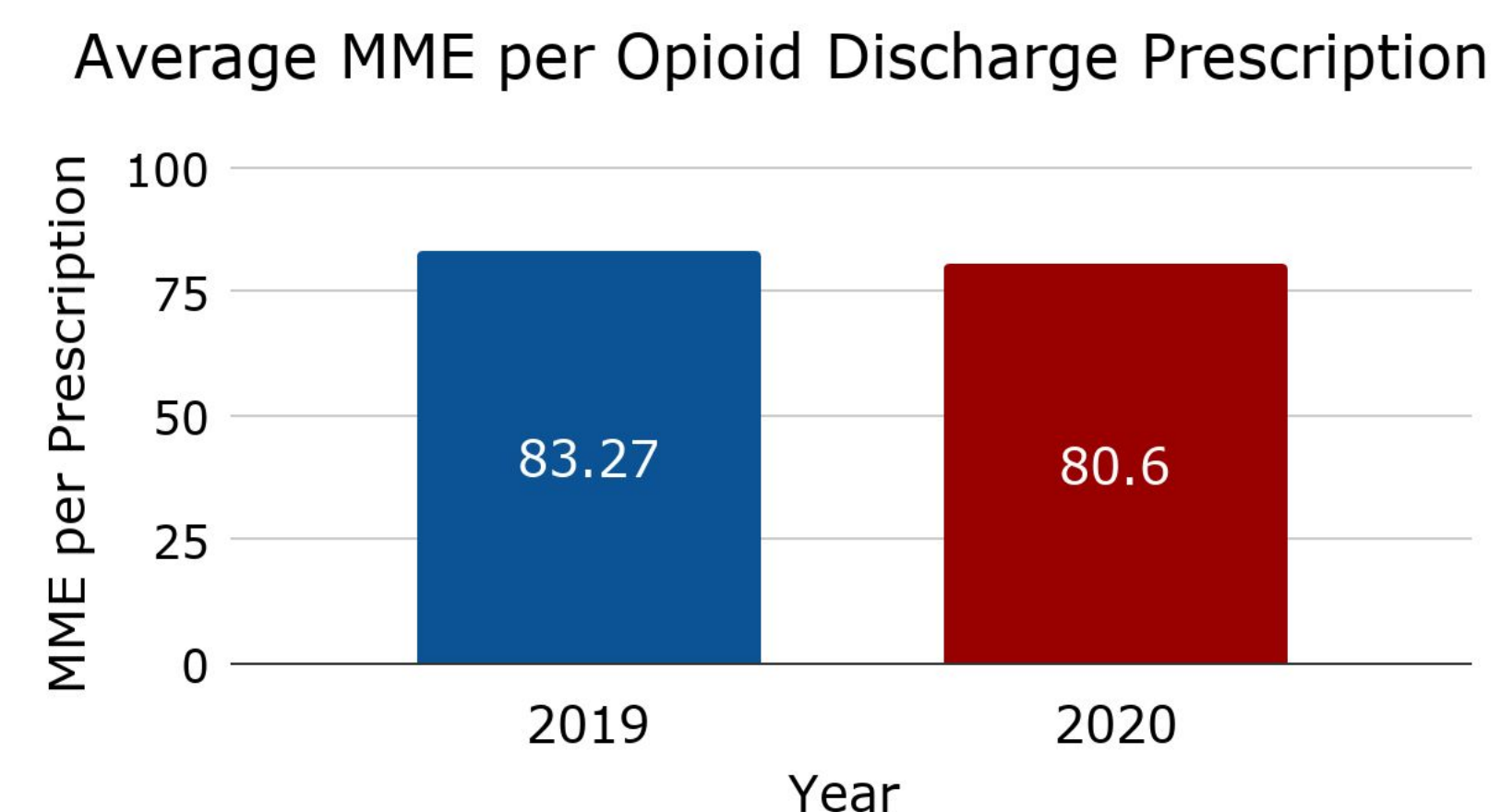


Figure 2. Average MME per opioid discharge prescription from the ED (p=0.36)

RESULTS cont.

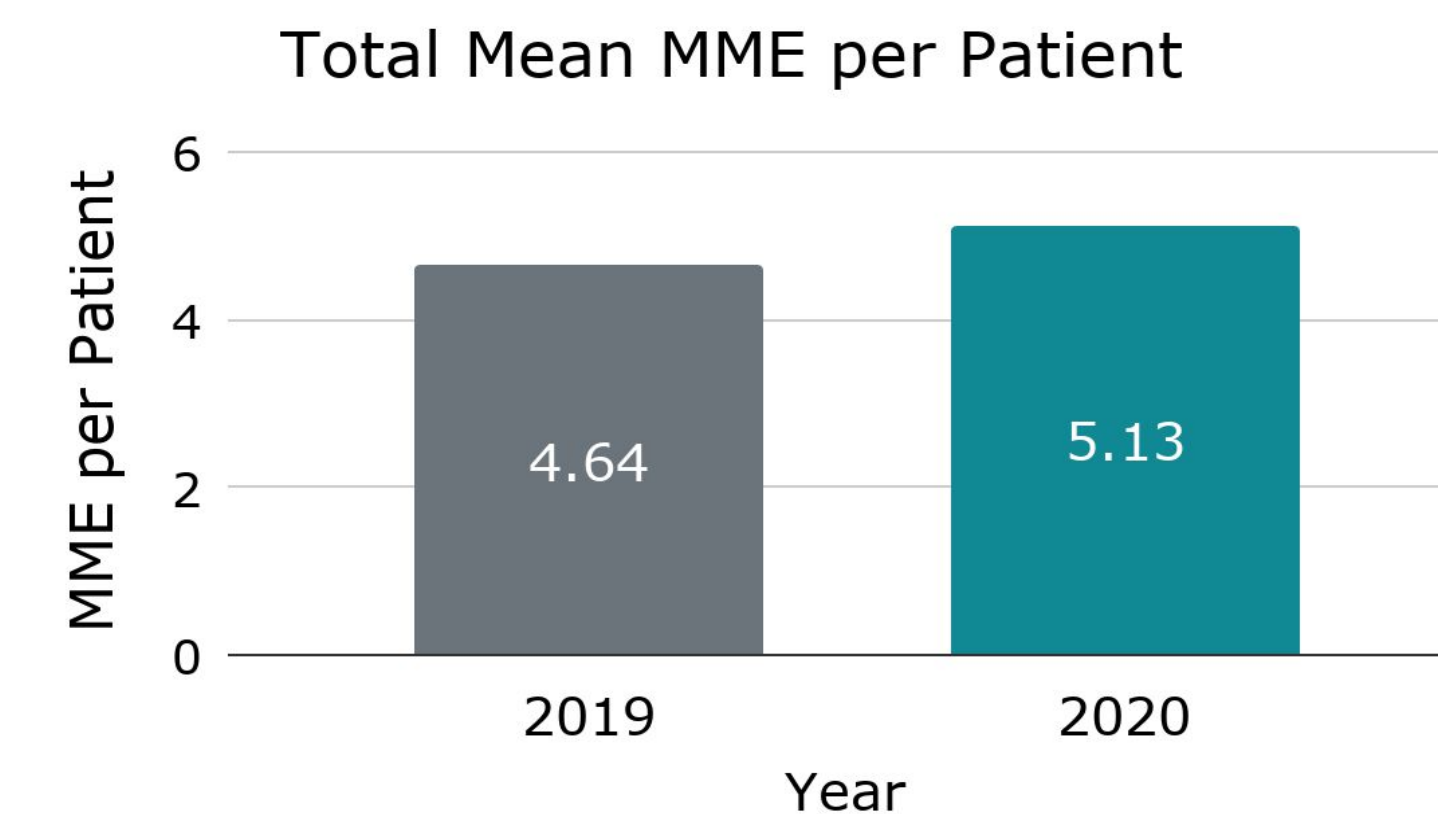


Figure 3. Total Mean MME per patient (p=0.213)

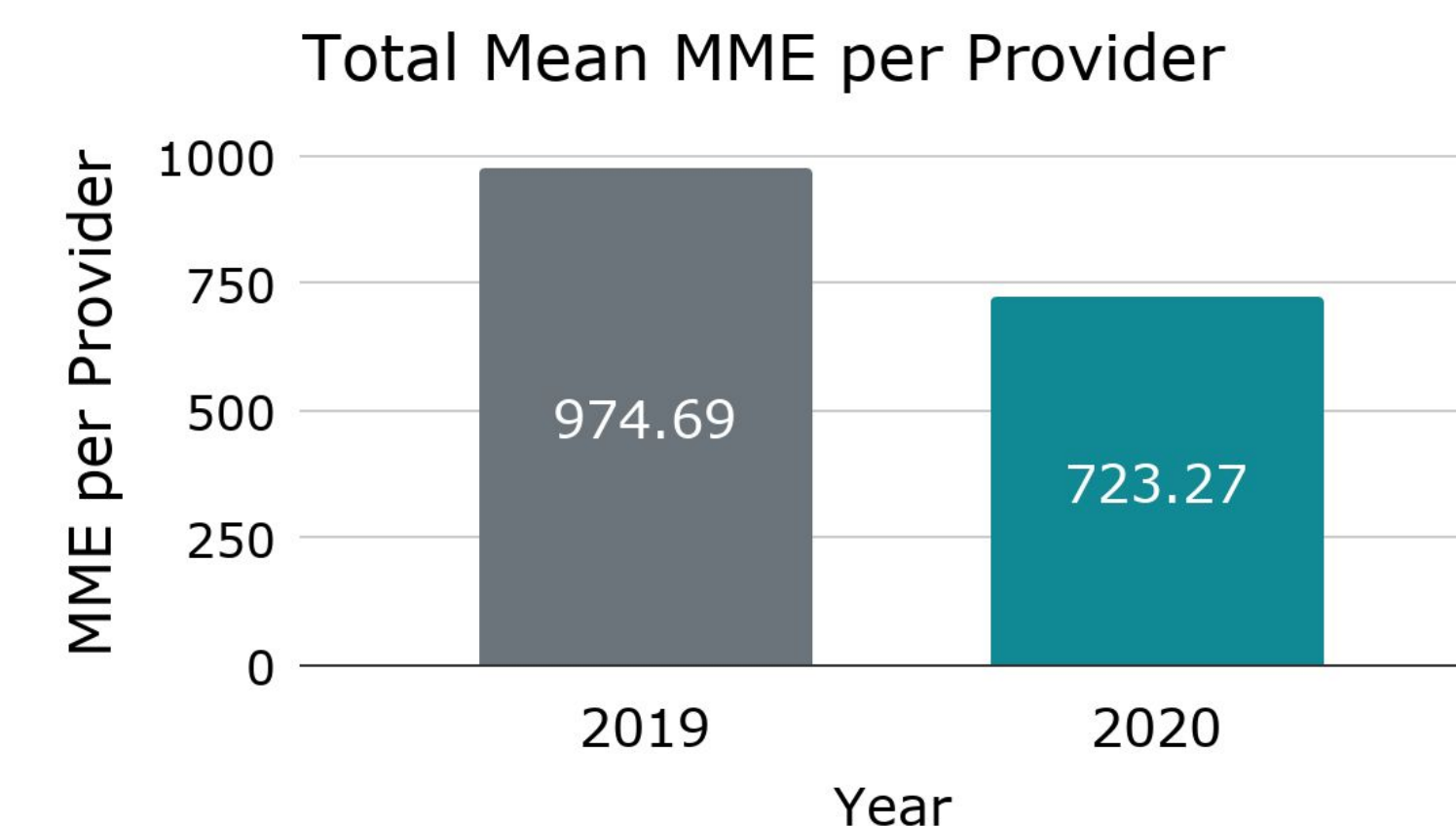


Figure 4. Total Mean MME per provider (p=0.067)

- 35 providers were included in final analysis, making up 60 percent of all ED opioid orders
- In 2019, an average of 25 percent of patients discharged from the ED were given a prescription for opioids, which decreased to 23 percent in 2020

CONCLUSIONS

- No statistical significance in total mean MME per provider or per patient between the two time periods
- No statistical significance in ER opioid discharge orders between the two time periods
- True extent of the non-opioid order set's influence was not demonstrated in this study
- Improved education on its availability may prove to further decrease opioid use and prescribing in the future
- Future studies may consider exploring the impact of patient demographics on opioid prescribing, such as gender, race, ethnicity, and socioeconomic status

LIMITATIONS

- Implementation during the COVID-19 pandemic made it unclear as to its impact on providers' prescribing habits⁴
- Inadequate time to adopt the order set prior to data analysis may not sufficiently detect a change
- Inherent differences in providers' preferences or adoption of change
- Data collected from a single hospital and may not be generalizable to other settings

REFERENCES

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