Naloxone: A Pain to Co-Prescribe? Evaluating naloxone co-prescribing practices for patients at an increased risk of opioid overdose at a federally qualified health center.

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INTRODUCTION

- Between 2019 to 2020, Arizona experienced a 33.6% increase in opioid overdose[2].
- Naloxone is a life-saving, opioid reversal agent available in multiple formulations.
- The CDC recommends naloxone for patients who meet the following criteria: patients receiving ≥50 MME/day of opioids, co-prescribed opioids and benzodiazepines, have a history of overdose, and/or receiving medication for opioid use disorder[1]

OBJECTIVE

- This retrospective study aimed to compare the number of patients who met CDC recommendations for prescribing naloxone versus the number of patients who were prescribed naloxone at El Rio health centers.
  1. *Hypothesis: Less than 50% of patients who meet the CDC recommendations for naloxone co-prescribing received orders for naloxone from prescribers at El Rio.*
  2. *Hypothesis: Patients who received more than 50 MME/day and those with a history of an opioid overdose are more likely to be co-prescribed naloxone.*

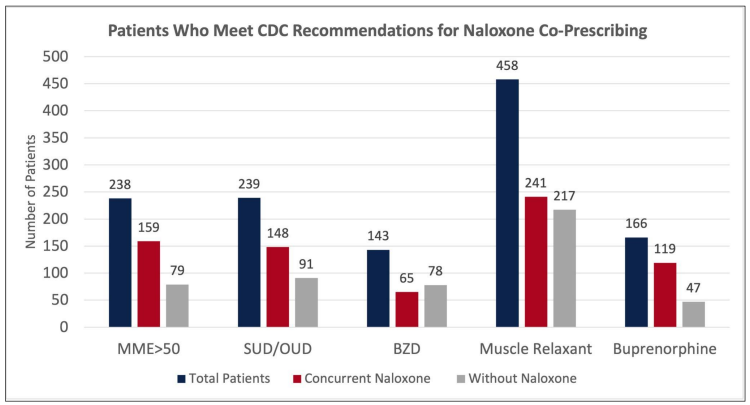
METHODS

- This was a descriptive, observational, retrospective, cross-sectional study from October 2022.
- To be eligible for this study, patients needed to have met CDC recommendations considered high risk for opioid overdose.
- Data analysis occurred through Microsoft Excel version 2310 from Microsoft 365.
- The data points included:
  - Combined MME
  - Prescription directions
  - Concurrent benzodiazepines
  - Concurrent muscle relaxants
  - Concurrent opioid antagonists and directions
- The original sample size was 773, however 77 patients were excluded due to lack of combined MME available.

RESULTS

- Of the sample size analyzed (n=696), there were 367 naloxone orders prescribed.
- See Figure 1 and Table 1 for results details.

Figure 1. A comparison of patients that met CDC criteria for naloxone co-prescribing.



DISCUSSION

Strengths

- High-risk medications included methadone, naltrexone, and buprenorphine, although it may not have been indicated for SUD or MME ≥50.
- Robust patient population size.
- The methodology was concise and only required Excel management manipulation.
- Multiple El Rio sites and providers were included.
- Occurred with data before naloxone went over the counter.
- Further analysis could occur to extrapolate prescribing patterns.

Limitations

- Data were pulled from a single time frame at a single health organization.
- Data timeframe was during the COVID pandemic where co-prescribing naloxone may not have been top priority when considering patients immediate health care needs.
- Patients that did not automatically have the MME calculated were eliminated from the data set.
- Methadone, naltrexone, and buprenorphine prescriptions represented patients with SUD which may not adequately describe the patient population.

Table 1. Percentage of patients with active naloxone orders that met CDC recommendations for co-prescribing of naloxone

Patient Category	Total Patients	Total Patients with Naloxone Orders	Percent of Patients with Naloxone Orders
MME ≥50/day	238	159	67%
Buprenorphine/Naltrexone/Methadone	186	130	70%
OUD/SUD	239	148	62%
OUD/SUD and MME ≥50	119	96	81%
Benzodiazepine	143	65	45%
Benzodiazepine and MME ≥50	42	22	52%
Muscle Relaxants	458	241	53%
Muscle Relaxants and MME ≥50	109	69	63%
Opioids, Benzodiazepines, and Muscle Relaxants	75	38	51%

CONCLUSION

- Naloxone co-prescribing was higher than initial predictions.
- There were 881 total opportunities to provide naloxone that met CDC recommendations.
- On average, 2 out of every 5 patients could have received naloxone that did not.
- Patients with OUD/SUD history or relevant medications were commonly co-prescribed naloxone.
- The most overlooked were those on benzodiazepines, muscle relaxants, and opioids simultaneously.
- Naloxone became over-the-counter after this research was conducted in an effort to expand access to this live-saving medication.

REFERENCES

1. *Risk Factors for Opioid Misuse, Addiction, and Overdose | U.S. Department of Labor*. (n.d.). Retrieved January 31, 2023, from https://www.dol.gov/agencies/owcp/opioids/riskfactors
2. *U.S. Opioid Dispensing Rate Maps | Drug Overdose | CDC Injury Center*. (2022, October 19). https://www.cdc.gov/drugoverdose/rxrate-maps/index.html