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Emily Caroline Wegenka
eodiear@vols.utk.edu

Mary Johnson
University of Tennessee, Knoxville, mjohn199@utk.edu

Thomas Vajen
thomasrv66@gmail.com

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Improving Outcomes for Persons with Opioid Use Disorder by Introducing Buprenorphine in the Emergency Department (ED)

Emily Wegenka, MSN, AGACNP-BC, FNP-C, ENP-C, RN, Dr. Mary Johnson DNP, PMHNP-BC, Dr. Thomas Vajen, MD

BACKGROUND

- Opioid related deaths are the leading cause of accidental death in adults less than 50 years old
- Approximately 130 people die daily due to opioid related causes.
- The one-year mortality following an ED visit for non-fatal opioid overdose is 4.7-5.5%
- Opioid misuse contributes to increased crime, family violence, and sexual abuse and trafficking.
- Opioid related healthcare costs are over $78.5 billion yearly in the US.
- Offering buprenorphine in the ED increases outpatient engagement at 30 days, in turn decreasing morbidity and mortality.

LOCAL PROBLEM

- Native Americans are disproportionately affected by opioid use disorder.
- In 2015, the Native American population had the highest drug per-capita overdose death rate in the United States.
- High rates of stress, unemployment, intimate partner violence, and poverty.
- Distrust with medical community due to previous harm.
- Project site county with 98.1 deaths per 100,000 residents compared to 36.9 per 100,000 residents in North Carolina cumulatively.

METHODS

- The Evidence-based Practice Improvement process model was used as the framework for this project.
- Literature search and review were focused on buprenorphine in the ED and follow-up.
- Those given buprenorphine in the ED were followed to determine if they remained engaged in outpatient behavior health treatment at 30 and 90 days.

INTERVENTIONS

- Buprenorphine offered to adults > 18 in the ED with OUD post non-fatal overdose and/or with moderate to severe withdrawal symptoms (COWS ≥ 8).
- Algorithms for initiation and follow up.

RESULTS

- One patient met initial criteria set and received buprenorphine in the ED.
- This patient was engaged in outpatient behavioral health treatment at 30 days.
- Evaluation to determine cause of fewer than expected participants, additional algorithm created.
  - Patients with OUD in remission with recent return to use, including recent incarceration.
- Fewer opioid overdose related ED visits during implementation period of November 2023-February 2024 (n=5) compared to year prior (n=19).

CONCLUSIONS

- The patient that was prescribed buprenorphine in the ED, remained engaged in outpatient behavioral health clinic after 30 days.
- Patients that are engaged in outpatient treatment are less likely to use illicit drugs, ultimately decreasing morbidity and mortality associated with OUD associated with infections, non-fatal, and fatal overdose.

Offering buprenorphine in the Emergency Department improves engagement in follow-up, decreasing morbidity and mortality associated with Opioid Use Disorder

![Opioid Overdose Related ED visits](chart.png)

November 2022-February 2023

November 2023-February 2024

Buprenorphine side effects:

- Anxiety, DKA, thyrotoxicosis, etc.
- Other substance intoxication or withdrawal:
  - Stimulant/benzo/xylazine/alcohol withdrawal: Continue buprenorphine (as a dose provided in ED)
  - Opioid withdrawal:
    - Consider time from last use, especially with recent incarceration.

Exclusion Criteria:

- Severe withdrawal symptoms (COWS 16 in the ED with
  - Additional algorithm created.

Additional information for non-ED withdrawal consider additional buprenorphine (max 32 mg)

If no improvement or worse occurs:

- Consider treatment with buprenorphine

Evaluation to determine cause of fewer than expected participants, additional algorithm created.

- Patients with OUD in remission with recent return to use, including recent incarceration.

Fewer opioid overdose related ED visits during implementation period of November 2023-February 2024 (n=5) compared to year prior (n=19).

The one-year mortality following an ED visit for non-fatal opioid overdose is 4.7-5.5%.

Opioid misuse contributes to increased crime, family violence, and sexual abuse and trafficking.

Opioid related healthcare costs are over $78.5 billion yearly in the US.