

Management of Opioid Withdrawal In Peripartum- A Case Report

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BACKGROUND

- CDC - 107,622 drug overdose deaths in the United States during 2021. Opioid overdose contributes >65% of this.
- Between 2017 and 2020, overdose mortality in pregnancy increased by more than 80 percent to a high of 11.85 per 100,000 in 2020.
- According to the 2020 data, the incidence of Neonatal Opioid Withdrawal Syndrome (NOWS) is 6 per 1000. i.e., 59 babies are diagnosed with NOWS every day.
- The alpha-2 agonist Xylazine (Tranq Dope), a widely used veterinary anesthetic, is mixed with illicit opioids frequently.

CASE PRESENTATION

- We report a case of 29 y.o., G2P2002 at 41w4d with a previous history of cesarean delivery who presented to triage with altered mental state, dilated pupil, unable to answer questions appropriately due to slurring of speech, and decreased response to external stimuli.
- The patient was evaluated in triage by Anesthesia and MFM team. Vitals at admission were T 98.4°F, HR:101, RR 20, BP:135/70, SpO2: 99 %. ABG reported a PCO2 of 50mmHg. A formal USG was obtained, which dated the patient at 37w2d with regular uterine contractions.
- Her past medical history was significant for chronic heroin use, asthma, depression with suicidal ideation, and allergic to Tramadol.
- A urine Toxicology screen was performed, positive for Amphetamines, Benzodiazepines, and Cannabinoids and negative for opioids. The MFM team ultimately recommended cesarean delivery.

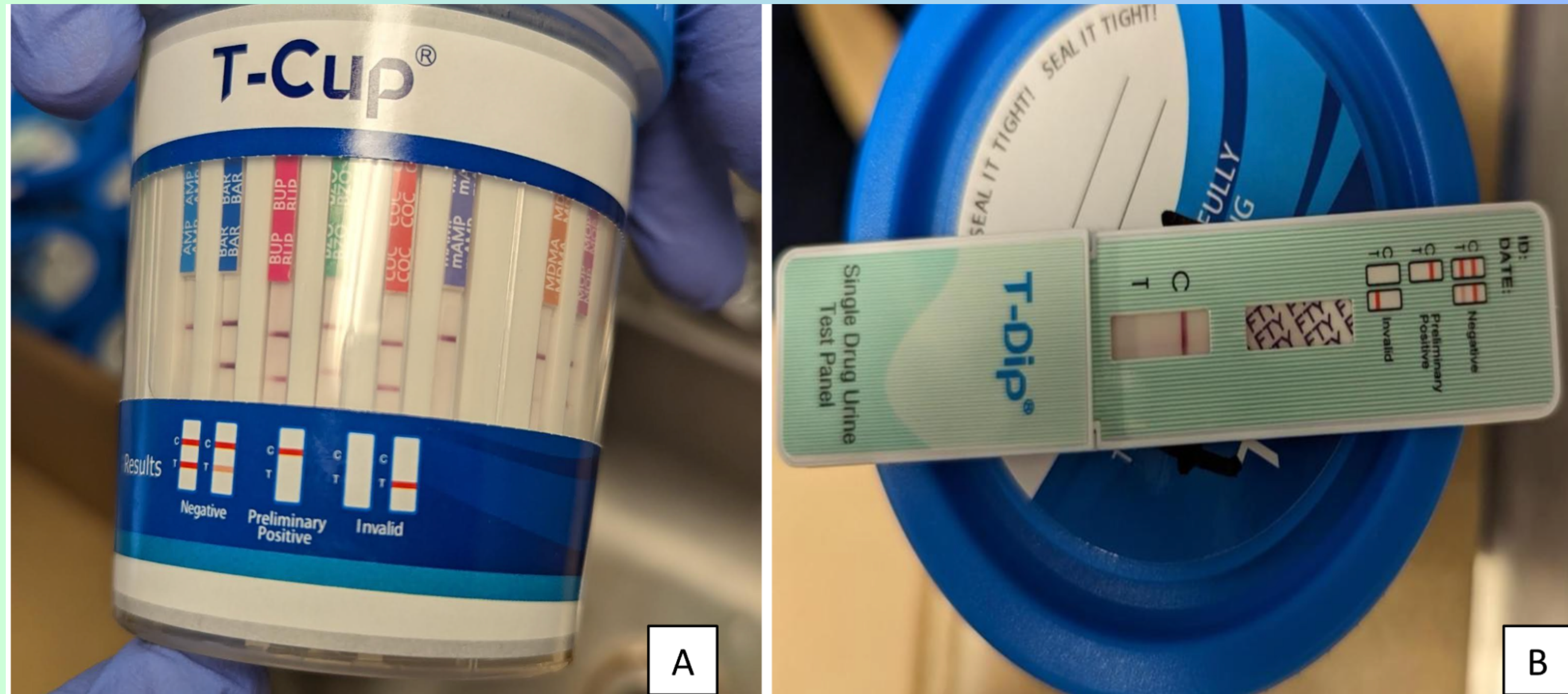


Figure 1- Showing the results of Urine Toxicology Screen. A. Test-Cup -Results positive for Amphetamines, 3,4-Methylenedioxy methamphetamine (MDMA). B. Demonstrates Urine Drug Screen strip Positive for Fentanyl.

- The patient received spinal anesthesia. She was irritable intra-operative, and her pulse rate was constantly above 100/min. She reported chills and fatigue during the surgery.
- She delivered a female baby with an APGAR score of 8/8/8. The newborn was later transferred to NICU for continuous oxygen support and clinical signs of NOWS.
- In the immediate postpartum, the patient was diagnosed with opioid withdrawal. Her clinical Opioid Withdrawal Score was (COWS)~36.
- She was started on IV Buprenorphine micro-dosing, PO clonidine 100 mcg, and IV Ondansetron 4mg PRN. The patient received an initial 100 mcg of Buprenorphine as an IV push and an incremental increase in the dose up to 500 mcg. The patient reported good analgesia with Buprenorphine. No opioids were required.
- On PPD 3, the patient was switched to oral Buprenorphine (Subutex) with improved cravings and withdrawal from illicit opioids.

DISCUSSION

Microdosing Schedule for Buprenorphine

DAY 1	DAY 2	DAY 3	DAY 4
100mcg- COWS -36	300mcg- COWS 5	400mcg	PO Subutex 8/2 mg
200mcg COWS-30	400mcg- COWS -2	500mcg	
200mcg- COWS -10	400mcg- COWS -0	PO Subutex 2/0.5mg	PO Subutex 8/2 mg

- FDA-approved OUD treatment includes Methadone (Full opioid agonist) Buprenorphine(Partial opioid agonist), Naltrexone.

References

- 1.Nathan,Anesthesia & Analgesia 135(5):p 911, November 2022.
- 2.Britany L Raymond,Curr Opin Anaesthesiol 2018 Jun;31(3):243-250.
- 3.Kelly Crane,J Acad Consult Liaison Psychiatry . 2021 Mar-Apr;62(2):243-247.

ANESTHETIC CONSIDERATION

- Anesthesiologists are increasingly exposed to peri-operative care for patients with substance use disorders. A thorough history including drug of choice, last usage, any overdose episodes in the past, COWS scoring, and review of urine toxicology results.
- It's okay to give more opioid analgesics to this patient population(w/f respiratory depression, Ensure availability of Narcan in the PACU-). Practice multimodal analgesia.
- Patient need not taper their opioid agonist therapy before surgery-Discuss post-op care with addiction medicine.
- Some prefer to skip the last dose of buprenorphine/Suboxone/Subutex.
- Dose adjustment for intrathecal morphine on a case-by-case basis (100mcg-300mcg)
- Providers do not need an X-waiver to prescribe Buprenorphine / Suboxone/ Subutex.

