



Buprenorphine to the Rescue!



Buprenorphine Rescue for XR Naltrexone-Precipitated Opioid Withdrawal: A Case Report

Hannah Kissel-Smith MD, Megan Lemay MD

Department of Psychiatry, Division of Addiction Medicine, VCU Health System



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Background

- Precipitated opioid withdrawal (POW) can occur with opioid antagonist administration
- Onset is rapid and can be severely physiologically and psychologically distressing to patients¹
- POW from long-acting injectable naltrexone can be long-lasting due to medication duration of action
- Buprenorphine has improved POW following naloxone²
- There is a gap in evidence for buprenorphine for treatment of POW from long-acting opioid antagonists^{3,4}

Patient Presentation

- 28-year-old woman with history of cocaine and opioid use disorders
- Presented to the ED with unresponsiveness
- Received naloxone 6 mg IN with improved mental status
- Recurrent respiratory depression in the ED necessitating naloxone infusion and admission to the ICU

Clinical Course

- Naloxone infusion titrated to 6 mg/hr, weaned over hospital days 1-4
- Naloxone infusion discontinued and patient transferred to medicine floor hospital day 5
- Patient reported primarily using cocaine and prolonged abstinence from opioid agonists; suspected adulteration of cocaine with opioid agonist.
- Opted for harm reduction approach with XR naltrexone 380 mg IM given on hospital day 6
- Developed POW symptoms 45 minutes after administration, COWS 13
- 1 hour later, patient given buprenorphine-naloxone 8 mg-2 mg SL film, ondansetron 4 mg ODT, clonidine 0.1 mg orally
- Symptoms resolved within 30 minutes, COWS 1
- Observed patient for 24 hours, no recurrence of POW symptoms (COWS 0-2), no additional buprenorphine
- Discharged home on hospital day 7, did not follow up at scheduled addiction medicine appointment

Discussion

- There is limited evidence in how to manage long-acting opioid antagonist POW symptoms
- This patient experienced POW following XR naltrexone IM administration which completely resolved after buprenorphine-naloxone administration
- Similarly to POW following naloxone or naltrexone administration, buprenorphine may effectively treat POW following XR naltrexone or other long-acting antagonist administration⁴.

Conclusion

- Buprenorphine-naloxone rapidly improved this patient's POW symptoms after receiving XR naltrexone IM.

References

- 1.Kunzler NM, Wightman RS, Nelson LS. Opioid Withdrawal Precipitated by Long-Acting Antagonists. *The Journal of Emergency Medicine*. 2020;58(2):245-253. doi:10.1016/j.jemermed.2019.12.015
- 2.Hern HG, Lara V, Goldstein D, et al. Prehospital Buprenorphine Treatment for Opioid Use Disorder by Paramedics: First Year Results of the EMS Buprenorphine Use Pilot. *Prehospital Emergency Care*. 2023;27(3):334-342. doi:10.1080/10903127.2022.2061661
- 3.Herring AA. Postoverdose Initiation of Buprenorphine After Naloxone-Precipitated Withdrawal Is Encouraged as a Standard Practice in the California Bridge Network of Hospitals. *Annals of Emergency Medicine*. 2020;75(4):552-553. doi:10.1016/j.annemergmed.2019.12.015
- 4.Szczesniak LM, Calleo VJ, Sullivan RW. Buprenorphine therapy in the setting of induced opioid withdrawal from oral naltrexone: a case report. *Harm Reduct J*. 2020;17(1):71. doi:10.1186/s12954-020-00417-9

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Timeline

