



Ocular Buprenorphine use in Jail

INTRODUCTION

- This case presents a novel method of buprenorphine/naloxone (BUP/NAL) diversion through the eye by a patient in the criminal justice system.
- This highlights the need for increased access to Medications for Opioid Use Disorder (MOUD) in incarcerated population.

CASE

- A 30-year-old male with history of gun shot wounds to both legs and Opioid Use Disorder (OUD) was admitted to hospital for skin and soft tissue infection.
- Patient was incarcerated for 2 months prior to hospital admission. He reported using BUP/NAL films via ocular administration while in jail.
- Patient placed a small fragment in his lower eyelid which caused irritation, lacrimation, and dissolved the film.
- He found that using a small fragment of the film, would make him feel intoxicated, with no withdrawal symptoms.
- The inability to obtain MOUD in jail led the patient to utilize BUP/NAL in this unconventional and dangerous method.
- During this hospitalization, he chose to start methadone as MOUD.
- Upon follow up after discharge, he denied further ocular buprenorphine use.

DISCUSSION

- The use of BUP/NAL through ocular absorption may lead to euphoric effect due to increased solubility of the medication with tearing.
- Additionally, buprenorphine and naloxone are lipophilic medications that are likely absorbed through the conjunctival and nasal route with high bioavailability and quicker onset of action.
- This route bypasses the first pass metabolism in the liver, making the dose absorbed highly effective; similar to sublingual administration.
- Specific complications related to ocular BUP/NAL is unknown given its rare occurrence.
- Corneal abrasion and scarring, ocular agenesis, and ocular infection leading to blindness were seen in patients who uses alcohol via ocular routes. Similar complications may occur with misuse of ocular BUP/NAL
- The first step act of 2018 requires the Bureau of Prison to provide evidence-based treatment to prisoners with OUD.
- The state of Maryland is requiring all jails to treat OUD with MOUD by January 2023.

CONCLUSION

- This case highlights misuse of BUP/NAL via an ocular route.
- Patients with OUD are using unconventional routes of administration of opioids to maximize effects of smaller doses, due to lack of access to MOUD.
- It is important for clinicians to be aware of alternative routes of administration so patients can be evaluated and treated.
- Clinicians should advocate for patients getting evidence based MOUD in the criminal justice system thus preventing dangerous misuse.

AUTHORS & DISCLOSURES

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Figure showing intraocular misuse of buprenorphine (*Adapted from Lacrisert user manual)