

## Use of Buprenorphine-Naloxone in the Emergency Department

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### THE OPIOID USE DISORDER EPIDEMIC

Surveys indicate that up to 1.9 million Americans met criteria for an opioid use disorder (OUD) based on their use of prescription opioid medication alone in 2013. Another 300,000 were regular users of heroin.<sup>1</sup> Deaths due to opioid overdose continue to rise, despite multiple policy interventions at the federal, state, and local levels. Many of these policy efforts have focused on prevention. Prevention is essential, but prevention won't help the millions of people already addicted to opioids.

### EVIDENCE FOR EFFECTIVE TREATMENT FOR OUD

Numerous clinical research trials have demonstrated the effectiveness of buprenorphine and buprenorphine/naloxone in treating OUD, when combined with drug screening and counseling.<sup>2</sup> Buprenorphine/naloxone is a partial opioid agonist that reduces opioid withdrawal symptoms, cravings, and risk of overdose.

### LACK OF ACCESS TO BUPRENORPHINE-NALOXONE

Despite the robust evidence for its effectiveness, too few patients have access to buprenorphine-naloxone for the treatment of OUD. For example, based on an analysis of Medicare Part D prescribing practices in 2013, approximately 81,000 Medicare enrollees are receiving buprenorphine-naloxone therapy (the only OAT available through Medicare Part D) (Lembke and Chen currently under review *JAMA* 2016), despite

more than 330,000 Medicare patients estimated to be struggling with an Opioid Use Disorder, and 211,200 per year requiring hospitalization for opioid overuse.<sup>3</sup> Over one-third of Part D enrollees fill at least one prescription for an opioid in any given year,<sup>3</sup> putting many more patients at risk for iatrogenic addiction.<sup>4</sup>

To combat the current prescription opioid epidemic, integration and promotion of buprenorphine-naloxone should be encouraged, and not just among addiction medicine specialists, who are far too few to meet the current and projected need. Physicians who prescribe high volumes of opioids are especially well-situated to intervene when cases of prescription opioid misuse, overuse, and use disorders arise.

### EVIDENCE FOR USING BUPRENORPHINE IN THE EMERGENCY DEPARTMENT

The Emergency Department is a health care setting in which patients with OUD commonly present, seeking more opioids to maintain their addiction, seeking help with opioid withdrawal, or in some tragic instances, needing emergency resuscitation for opioid overdose. Emergency Department (ED) physicians are thus uniquely positioned to intervene to help patients with OUD at a critical moment in the addiction cycle.

Some preliminary evidence suggests that buprenorphine formulations are a safe tool in the ED, do not promote drug-seeking, and may help to engage patients in further opioid addiction treatment.

A study by Berg et al<sup>5</sup> looked at the use of buprenorphine in the ED as a treatment for opioid withdrawal, as compared with usual care (no pharmacologic management or supportive therapies such as anti-nausea medications and sedatives). Although this was a retrospective chart review with a small sample size (n=158) which only looked at one ED setting, the authors found no instances of precipitated opioid withdrawal (a potential medical complication of buprenorphine), and a greater than 50% reduction in return-rate to the same ED for a drug-related visit within one month, compared to return-visit rate for usual care (17% vs 8%).

A study by D'Onofrio et al<sup>6</sup> selected patients in the ED between 2009 and 2013 who met criteria for opioid addiction based on a structured interview (DSM-IV criteria for opioid dependence) and who had a urine sample positive for opioids. Patients were then randomized to one of three groups: 1. referral to addiction treatment, 2. brief intervention in the ED and referral to addiction treatment, or 3. buprenorphine in the ED plus referral to a primary care buprenorphine clinic, where they could continue to receive the drug. Patients in the buprenorphine group were given enough buprenorphine to get them to their scheduled outpatient visit, and those not induced in the ED were given buprenorphine and instructions about home induction. The authors found that 89 of 114 patients (78%) in the buprenorphine group were engaged in formal addiction treatment (office-based treatment, day treatment, residential treatment, any form of medication assisted treatment for addiction) one month after presenting to the ED. This was a

significantly higher proportion of patients than in the referral only group (38 of 102 patients; 37%), or in the brief intervention group (50 of 111 patients; 45%). The buprenorphine group also reported greater reductions in the number of days of illicit opioid use, although there were no differences between groups in the rate of negative urine toxicology screens.

## RECOMMENDATIONS

Evidence to date on the use of buprenorphine/naloxone in the Emergency Department is sparse; but based on the evidence available, we draw the following conclusions:

- Buprenorphine use in the ED does not appear to be associated with undue medical complications, such as precipitated withdrawal
- Buprenorphine use in the ED does not appear to promote drug-seeking in the ED where it is administered
- Patients who receive buprenorphine in the ED may be significantly more likely to engage in addiction treatment following ED discharge
- Home induction of buprenorphine initiated in the ED is a viable alternative for patients who are not yet in sufficient opioid withdrawal to be induced in the ED setting
- Patients who receive buprenorphine in the ED should be provided a follow-up appointment with a X-waivered provider. The appointment should be made as soon as possible, ideally within three days, due to statutory limits on ED medication administration.

## REFERENCES

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