Buprenorphine in the ED: a review of practices, barriers, and future directions

Scott Cao, BS[1]; Samuel Dunham[1], MS; Scott Simpson, MD, MPH[1,2]
University of Colorado School of Medicine[1]
Department of Psychiatric Emergency, Denver Health[2]

Introduction and Objectives

Why is this topic important?

Opioid overdoses and misuse continue to persist in this country. Emergency departments (ED) are adopting buprenorphine induction protocols in efforts to combat the opioid epidemic in the frontlines.

What does this review attempt to show?

This clinical review serves to summarize evidence for buprenorphine induction, best care practices including transitions of care, and implementation barriers of induction protocols.

What are the key findings?

Buprenorphine induction in the ED has demonstrated efficacy in improving patient engagement and 30-day retention in substance treatment programs. There is no approach is best supported by the literature. Transitions of care varies equally including the use of “hub and spoke” and “warm hand-offs” as models. Provider inexperience, discomfort, and limited time in ED are major barriers to buprenorphine implementation.

How is patient care impacted?

By synthesizing current literature into a comprehensive review, we hope to increase the implementation of buprenorphine inductions in EDs across the country. This review will serve as a clinical guide for best practices. We hope this effort leads to the expansion of quality addiction care for patients seeking help for their opioid misuse.

Methods and Materials

A search of the Pubmed, PsychInfo, and Embase databases was conducted to identify articles related to OUD treatment in the emergency department using a combination of terms ‘buprenorphine’ and ‘emergency service, hospital’. Study quality was assessed using the Cochrane risk of bias for randomized controlled trials and the Newcastle-Ottawa scale for cohort studies (5, 6).

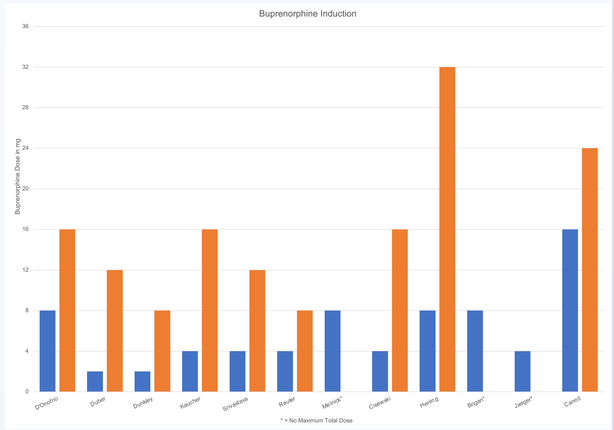

Table 1. Initial buprenorphine doses (blue) vs Maximum buprenorphine doses (orange)

FAQ

Reviewed articles

Out of 818 academic products identified through an initial database search, **25 were applicable** to this narrative review. These studies included 14 peer-reviewed manuscripts and 11 scientific abstracts. Figure 1 illustrates the article selection process (7). Of the 14 manuscripts, **two were randomized controlled trials** and seven were cohort studies.

Effectiveness of buprenorphine induction for patients with OUD

A major outcome of interest is initial follow-up at outpatient appointments after discharge from the ED and what percentage were still enrolled at 30 days.

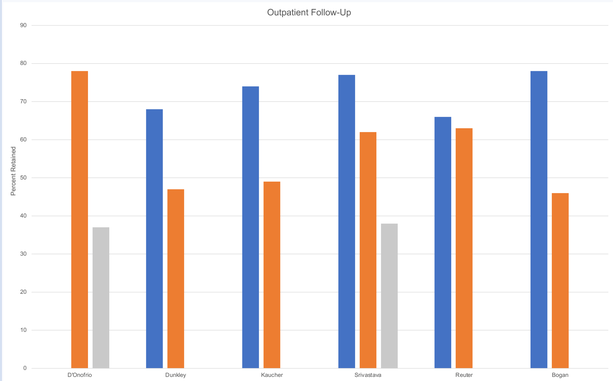

Table 2. Percent at initial outpatient visit (blue) vs at 30-Day Follow-Up (orange) vs control (grey)

Optimal follow-up arrangements for patients after buprenorphine induction?

Follow-up arrangements are widely varied, with no comparative studies looking at the different follow-up interventions. Some studies described **X-waivered ED providers prescribing a 3-day supply of buprenorphine to bridge patients to outpatient care** (3, 12, 15, 18) or medication-assisted therapy (MAT) clinics (15-17). In some cases the prescribing physician in the ED may also see the patient in clinic (8). More intensive follow-up support includes **coordination with psychological or case management services** in the ED (12, 16-18), and **warm handoffs with social workers and case managers** are a particularly popular choice in EDs (13, 14, 16, 29, 30).

Barriers to implementation of buprenorphine induction programs in EDs

Physician barriers to providing induction centered around a lack of clinical **familiarity prescribing buprenorphine, concerns about legal regulations, and the impact on ED length of stay and patient flow** as well as potential **misuse and diversion** (20-25). Patients’ reluctance centered around acceptance of treatment due to fear of stigmatization and **general mistrust in the health system** (23, 26).

Conclusions

Buprenorphine is a safe and effective treatment for patients with OUD in the ED. Studies demonstrate improved rates of outpatient follow-up and decreased illicit substance use among patients receiving buprenorphine induction versus alternative care. Barriers that were found by physicians and health systems when implementing ED induction protocols include: ambiguous presentations of opioid withdrawal, impact on length of ED stay, and safety treatment of highly co-morbid patients. Patients with substance abuse will continue to present to emergency medical services. The capacity to provide ED-based buprenorphine induction programs represents an important advancement in the care of these patients, and one that may hold lessons for the treatment of other substance use disorders.

Disclosures

We have no disclosures to make.

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