

Background/Significance: Opioid overdosing and misuse continue to persist in this country (Scholl, 2018). In response, Emergency departments (ED) are beginning to adopt buprenorphine induction protocols to combat this epidemic on the frontlines (D’Onofrio, 2015). This clinical review summarizes evidence for buprenorphine induction, best care practices including transitions of care, and implementation barriers of induction protocols.

Methods: We conducted a search of Pubmed, PsychInfo, and Embase databases to identify articles related to opiate use disorder (OUD) treatment in the emergency department using a combination of the terms ‘buprenorphine’ and ‘emergency service, hospital’. References from included articles were utilized to identify additional literature. Results were narrowed to include English-titled articles published after 1980, and the authors selected articles pertaining to treatment of OUD with buprenorphine in an ED setting. Study quality was assessed using the Cochrane risk of bias for randomized controlled trials and the Newcastle-Ottawa Scale for cohort studies

Results: Buprenorphine induction in the ED has demonstrated efficacy in improving patient engagement and 30-day retention in substance treatment programs (Dunkley, 2019). A number of different buprenorphine induction protocols are presented, but criteria for induction and initial dosing protocols vary widely, with no particular approach best supported by the literature. Similarly, transition of care models focused on a “hub and spoke” or “warm hand-offs” model, but no studies compare the efficacy of these approaches. We found that provider inexperience, discomfort, and limited time in ED are major barriers to buprenorphine implementation. Currently, there are no studies that report the number of emergency departments offering induction.

Discussion: ED buprenorphine induction is safe and enhances adherence to addiction treatment. However, uncertainty persists in best practices for identifying patients needing treatment, induction protocols, and interventions to enhance follow-up after ED-based treatment. Answering these questions seems likely to reduce barriers faced by EDs thereby expanding access to and the quality of addiction treatment.

Conclusion/Implications: By synthesizing current literature into a comprehensive review, we hope to increase implementation of buprenorphine induction 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.

#### References:

1. Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and Opioid-Involved Overdose Deaths - United States, 2013-2017. *MMWR Morb Mortal Wkly Rep.* 2018;67:1419-27.
2. D’Onofrio G, O’Connor PG, Pantaloni MV, et al. Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. *Jama.* 2015;313:1636-44.
3. Dunkley CA, Carpenter JE, Murray BP, et al. Retrospective Review of a Novel Approach to Buprenorphine Induction in the Emergency Department. *J Emerg Med.* 2019;57:181-6.