

Successful Buprenorphine Rotation for Patients on Chronic Opioid Therapy Is Not Associated with Less Potent Opioid Agonists or Lower Doses

👤 Sarwan G¹, Bazil T¹, DeLeon O^{1,2},
Hitt J^{1,3}

¹ University at Buffalo Department of Anesthesiology

² Roswell Park Cancer Institute

³ Western NY VA Healthcare System

INTRODUCTION

- Updated VA/DoD Guidelines recommend consideration of buprenorphine for patients who require chronic opioid therapy¹.
- Buprenorphine (BUP) is a partial-agonist with a lower risk of respiratory depression, overdose, and addiction^{1,2}.
- Buprenorphine appears to provide reasonable analgesia²; however, rotation from pure agonists can be challenging.
- We aim to identify which factors can assist in predicting which patients are more likely to successfully transition to buprenorphine.

METHODS

- The VA Corporate Data Warehouse (CDW) was queried for patients who received BUP (buccal or transdermal) between 2017 and 2020, and additional details pertaining to demographics, previous medication treatments, interventional pain treatments, and reported pain scores were extracted for the cohort.
- Successful rotation to buprenorphine was defined by patients who had greater than 90 days of buprenorphine treatment with at least a 75% refill rate during that period.
- Logistic regression was used to examine patient factors associated with successful rotation.

References:

1: Sandbrink F, Murphy JL, Johansson M, et al. *Annals of Internal Medicine*. 2023;176(3):388-397.

2: Lazaridou A, Paschali M, Edwards RR, Gilligan C. *Pain Medicine* (Malden, Mass) 2020;21(12):3691-3699.

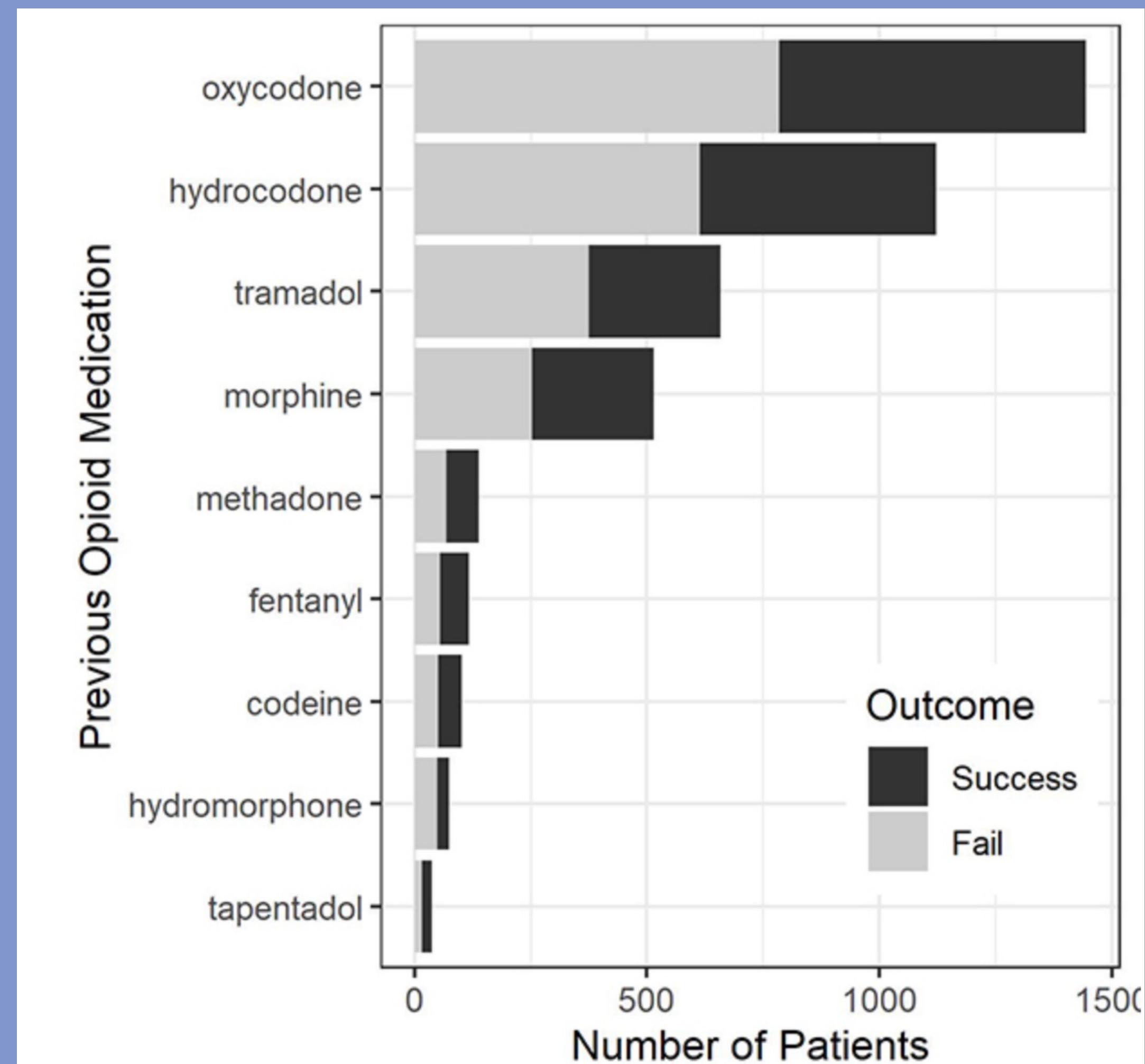


Figure 1 The overall success rate was similar across a wide variety of pure opioid agonists, including oxycodone, hydrocodone, methadone, and fentanyl.

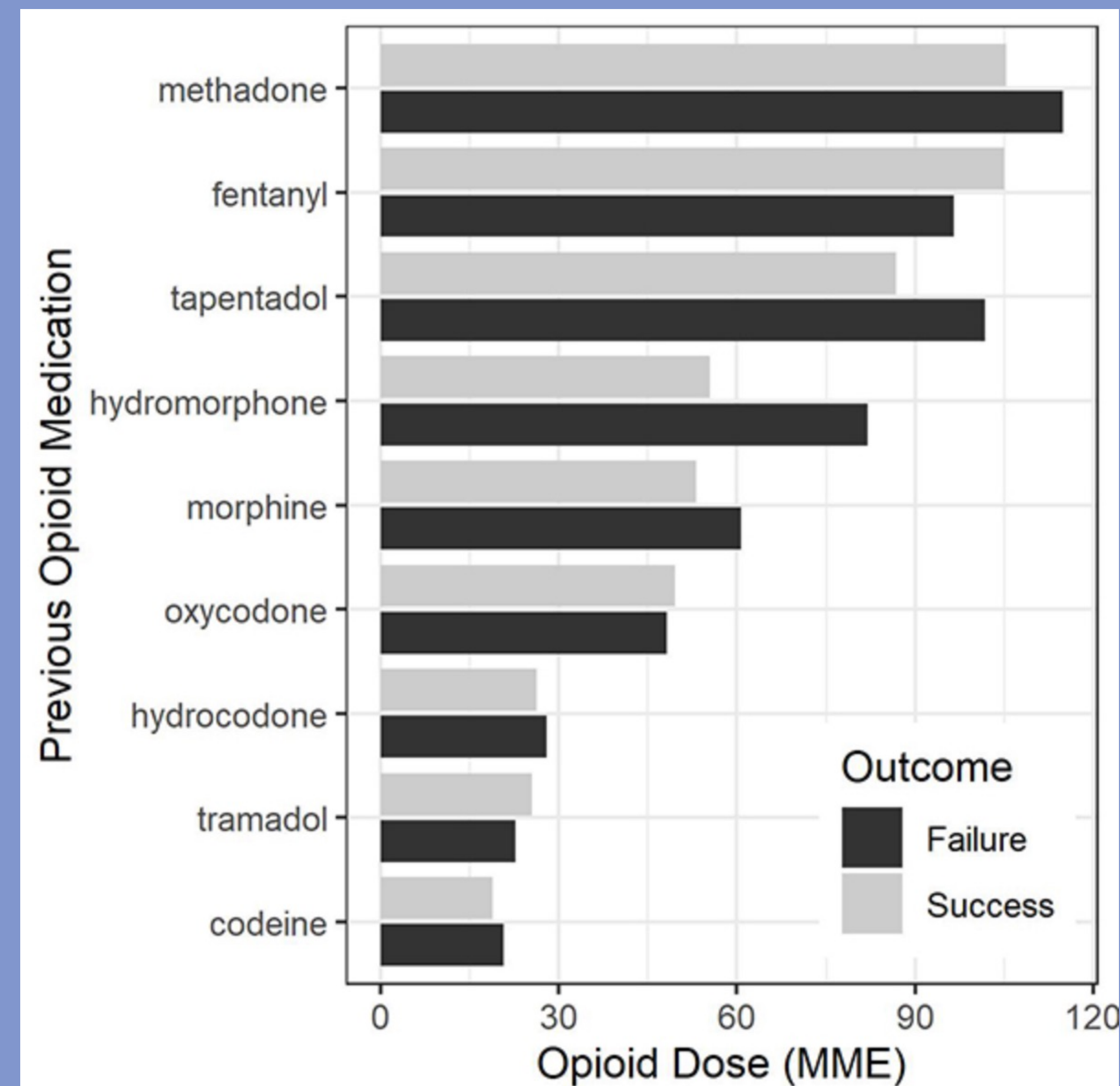


Figure 2: The success rate of rotation was similar for nearly all opioid agonists despite varying potency and pre-rotation dose (MME).

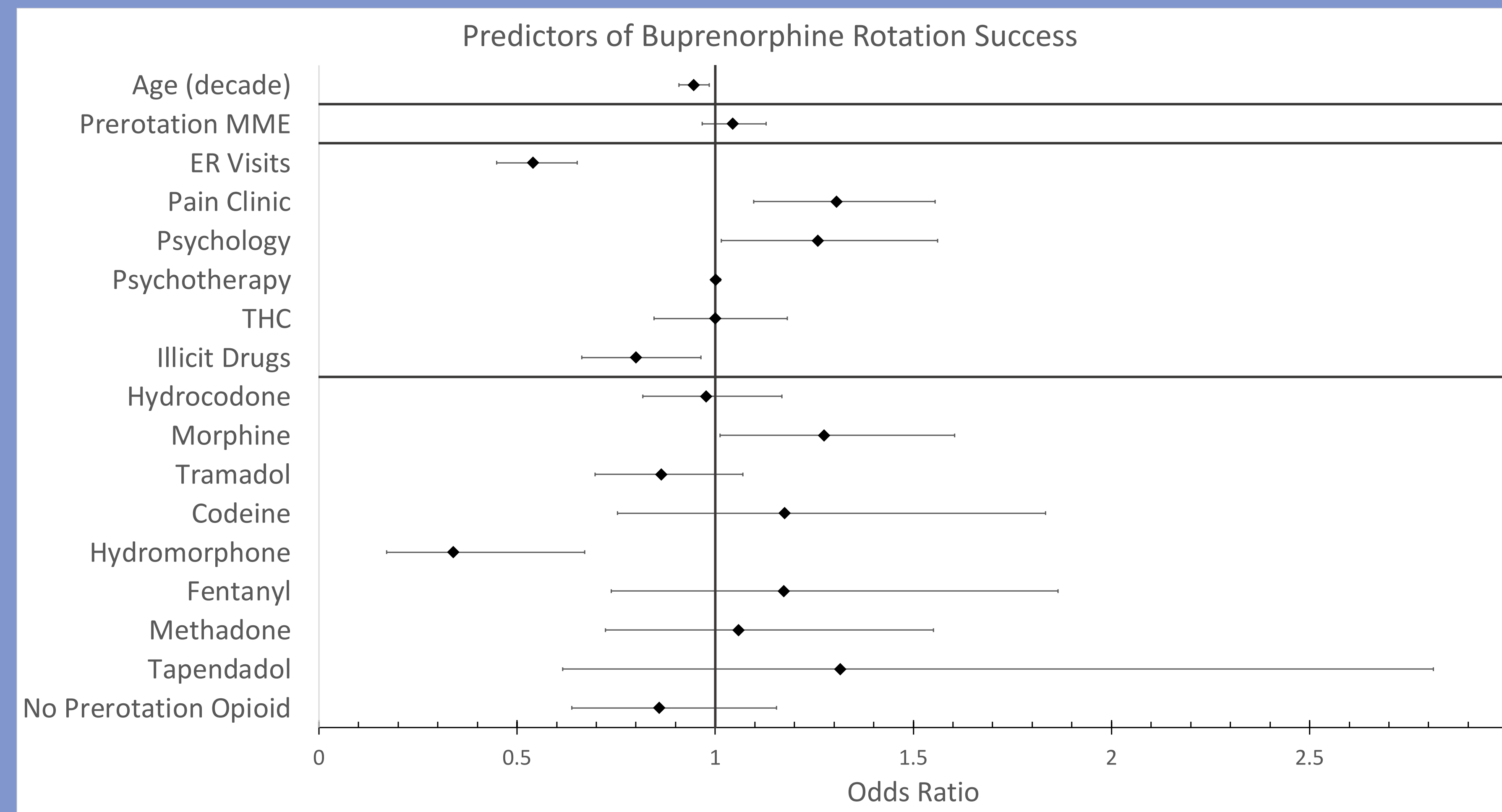


Figure 3. Forest plot of logistic regression coefficients shows that pre-rotation opioid and MME were not associated with success. Pain clinic and Psychology evaluation had a positive effect and ER visits (>2) and illicit toxicology results had a negative effect. Advancing age had a slight negative effect.

RESULTS

- A total of 6,227 patients received buccal or transdermal BUP during the study period of 2017 to 2020.
- Demographics were typical for a VA population: age 60.6 (13.2) years and >80% white, non-Hispanic males.
- The rotation to BUP was successful in 2629 patients (42.2%), and the success rate did not differ for opioids of varying potency and MME daily dose (Fig 1 and 2).
- MME for successful and failed rotation was similar (58.4 ± 33.4 vs 64.0 ± 36.3 MME for successful and failed attempts, $P = 0.93$).
- Pre-rotation average pain scores were slightly higher in the failed group (5.13 ± 2.20 vs 5.43 ± 2.33 for successful and failed attempts; $P = .045$).
- Patient factors associated with success were Pain Clinic and Psychology evaluations.
- Patient factors associated with failure were ER visits and illicit toxicology results (excluding THC).
- Pre-rotation opioids were not associated with outcome except for morphine (positive) and hydromorphone (negative).
- Age was associated with a small linear decline in success.

CONCLUSION

- The success rate of buprenorphine rotation was not different for a range of opioid agonists and doses.
- The success of opioid rotation likely depends on patient factors and the psychosocial context of an individual patient's chronic pain (Figure 3) more than opioid pharmacology.

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