Office-Based Treatment Retention Among Patients With Opioid Use Disorder and Recent Fentanyl Use: Extended-Release Injectable Buprenorphine (CAM2038) vs Sublingual Buprenorphine

Brian J. Dawson[1], Dan Goulette[1], Eric Fox[1], Colin Cunningham[1], Adam Friedman[2], Carrie Kaempfer[2], Natalie R. Budilovsky-Kelley[2], Joshua M. Cohen[2]

[1]Ideal Option, Renton, WA; [2]Braeburn Inc, Plymouth Meeting, PA

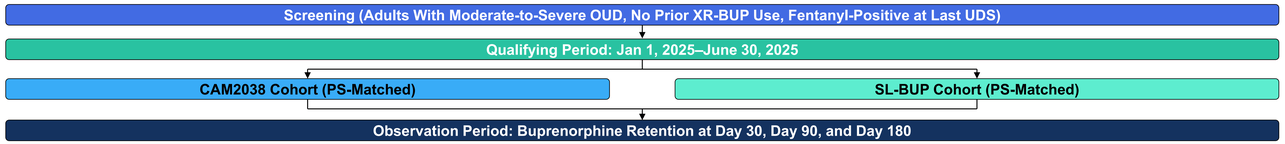
BACKGROUND

- High-potency synthetic opioids, including fentanyl, continue to be the leading cause of drug overdose deaths in the United States.[1]
- Buprenorphine is an effective, FDA-approved medication for opioid use disorder (OUD), with multiple formulations available.[2]
- Sublingual buprenorphine (SL-BUP) is widely used but presents challenges for patients with OUD, including daily dosing burden, diversion and misuse risk, and stigma, that can contribute to treatment discontinuation, a key driver of opioid-related mortality.[3]
- Extended-release injectable buprenorphine (XR-BUP) may address these challenges and optimize retention on buprenorphine.[3]
- Real-world evidence comparing treatment retention between buprenorphine formulations among patients with OUD who use fentanyl is limited.

METHODS

- A retrospective analysis of electronic medical record (EMR) data from Ideal Option, a national outpatient network of addiction clinics, included adults with moderate-to-severe OUD and no known prior XR-BUP use.
- Patients were assigned to the Brixadi® (CAM2038) cohort if they received their first dose of CAM2038 during the qualifying period (Jan 1, 2025–June 30, 2025) and were assigned to the SL-BUP cohort if they received a prescription for SL-BUP and no XR-BUP medications during the qualifying period.
- Propensity scores were estimated based on age, gender, race, tenure with Ideal Option, Medicaid status, polysubstance use, and urine drug screen (UDS) history/positivity.[4]
- Eligible patients in each cohort with a fentanyl-positive result on their last UDS prior to qualifying were matched 1:3 (CAM2038:SL-BUP).[5]
- Treatment episodes began at first CAM2038 injection or first appointment with an active SL-BUP prescription and ended at the last day of observation or when a treatment gap within an episode exceeded the day supply of the last prescription received; only the first treatment episode was analyzed.
- The analysis evaluated the proportion of patients active in treatment with any buprenorphine medication at Day 30, Day 90, and Day 180 from the start of the treatment episode.

Figure 1. Study Schematic



OUD = opioid use disorder; PS = propensity score; SL-BUP = sublingual buprenorphine; UDS = urine drug screen; XR-BUP = extended-release injectable buprenorphine.

RESULTS

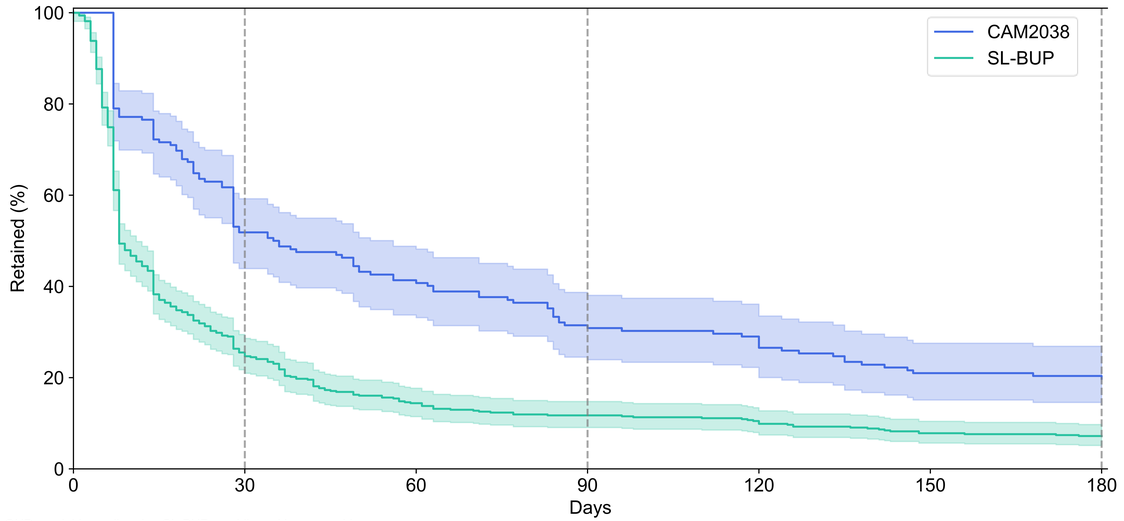
- Following propensity score matching, 162 patients were included in the CAM2038 cohort and 486 patients were included in the SL-BUP cohort (from an eligible population of 1988).
- Treatment retention on buprenorphine was significantly higher in the CAM2038 cohort than in the SL-BUP cohort during the 6-month observation period (log-rank test, P<0.001) (**Table 1**; **Figure 2**).

Table 1. Buprenorphine Retention in Patients With OUD and Recent Fentanyl Use

Timepoint	Treatment Retention, % (95% CI)	
	CAM2038 (n=162)	SL-BUP (n=486)
Day 30	51.85 (43.90–59.22), n=84	25.51 (21.73–29.46), n=124
Day 90	31.48 (24.49–38.69), n=51	11.73 (9.06–14.77), n=57
Day 180	20.37 (14.56–26.87), n=33	7.20 (5.13–9.73), n=35

OUD = opioid use disorder; SL-BUP = sublingual buprenorphine.

Figure 2. Buprenorphine Retention in Patients With OUD and Recent Fentanyl Use



OUD = opioid use disorder; SL-BUP = sublingual buprenorphine.

LIMITATIONS

- The EMR data evaluated may be limited by incomplete capture of all relevant clinical and sociodemographic variables.
- These data reflect patients treated through a specific outpatient network of addiction clinics and may lack generalizability to other treatment settings.
- Despite the propensity score matching applied to the study cohorts, additional confounders may exist that impact these results.

CONCLUSIONS

- In this real-world, retrospective analysis of patients with OUD and recent fentanyl use, office-based treatment with CAM2038 was associated with greater retention on buprenorphine compared to SL-BUP over a 6-month period.
- CAM2038 may offer advantages in sustaining engagement in treatment compared to SL-BUP in patients with OUD who use fentanyl.

REFERENCES

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DISCLOSURES

BJD has received consulting/speaking honoraria from Braeburn Inc. AF, CK, NRB-K, and JMC are current employees of Braeburn Inc.

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