

Buprenorphine/Naloxone Induction of OUD Patients Using Telehealth in the Fentanyl Era

INTRODUCTION

- Treatment of Opioid Use Disorder (OUD) with buprenorphine using telehealth-based opioid treatment (TBOT) offers one potential solution to overcoming access barriers and meeting increased treatment demand during the opioid overdose crisis
- There is a concern whether the emergence of fentanyl in the street drug supply impacts the feasibility, safety, and effectiveness of the TBOT/home-based buprenorphine inductions
- The development of induction methods which minimize precipitated withdrawal (PWD) and suppress cravings for street opioid use in a time-sensitive manner is essential to facilitating treatment engagement
- We present practice-based data that describe outcomes of patients undergoing buprenorphine/naloxone inductions as part of routine telehealth practice of providers working independently under the auspices of a TBOT provider (Ophelia Medical Group)
- We compared the induction experience of likely fentanyl users with initiated individuals who reported use of street-sourced pills (likely containing fentanyl) or only using opioids dispensed by a pharmacy (no fentanyl present)

METHODS

- We conducted chart reviews of consecutive patients seen by two providers (RPP, EM) entering treatment between Dec 2021 and November 2022
- Sample included 208 consecutive adult patients (Table 1), residing in PA, NY and CT (Figure 1), presenting with active OUD and not taking buprenorphine at time of intake
- Virtual face-to-face intake evaluation with shared decision making included 1-week prescription of buprenorphine/naloxone for home induction, and a prescription for adjunctive medications
- Verbal instructions were reinforced with illustrated guides (see Figure 2) and check-in calls from the care team
- Patients with likely fentanyl use were encouraged to wait 24-48 hours before their 1st dose of buprenorphine and received adjunctive medications started approx. 16-24 hrs into the washout period
- Outcomes included, induction-related Adverse Events (Table 2), buprenorphine dose (Figure 3) and engagement in care (Figure 4)

RESULTS

Figure 1. Patient Geographic Distribution

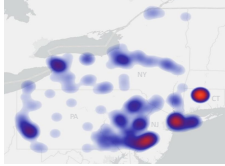


Figure 2. Example of Patient Instructions and Outline of Induction Method

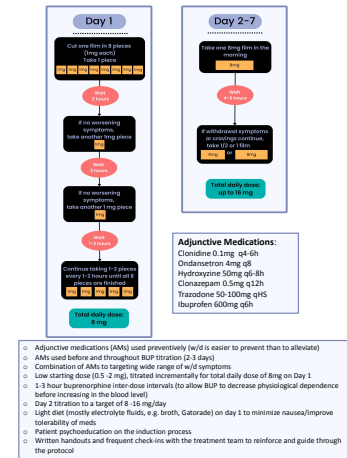


Figure 3. Average (SD) Initiating and Initial Bup Dose (mg)

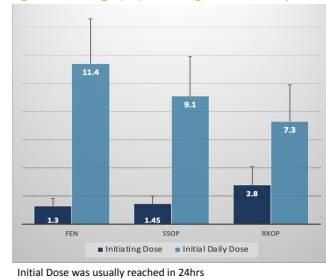


Table 1. Patient Characteristics (N=208)

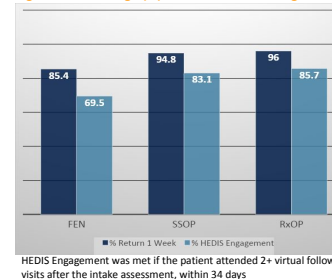
	Mean or N (range %)		
Age (years)	40.2 (21-68)		
Female	99 (47.6%)		
Race (White)	72%		
Predominant Type of Opioid			
Fentanyl (FEN)	82 (39.4%)		
Street Source Opioid Pills (SSOP)	77 (37.0%)		
Prescription Opioids (RxOP)	49 (23.6%)		
Primary Route of Opioid Use			
Intravenous	FEN	SSOP	RxOP
	29.2%	0%	0%
Smoked	4.2%	0%	0%
Intranasal	64.5%	48.6%	9.5%
Oral	2.1%	51.4%	90.5%
Reported Psychiatric Comorbidities			
Anxiety disorder	47.0%		
Depression	27.0%		
PTSD	21.6%		
ADHD	16.0%		
Bipolar disorder	11.3%		
Reported Medical Comorbidities			
History of Pain (various)	53.5%		
Has medical insurance	133 (64%)		

Table 2. Induction-related Adverse Events (N=208)

	N (%)
Precipitated Withdrawal (mild/moderate)*	15 (7.2%)
Persistent Withdrawal (lasting >24hrs) ^a	22 (10.6%)

*60% and *73% of all precipitated and persistent withdrawal, respectively, reported by patients in the FEN subgroup
Of the 37 who reported AEs, 3 pursued inpatient treatment and the remainder stayed in care for at least 30 days

Figure 4. Percentage (%) of Patients Remaining in Care



CONCLUSION

- Home-based buprenorphine inductions guided by telehealth were feasible and generally well tolerated: >90% of patients returned for 1+ follow up session & 78% met HEDIS engagement criteria (2+ visits within 34 days of intake)
- The initiating buprenorphine dose was generally lower and total daily dose on Day 1 was higher for individuals with likely fentanyl use history
- Induction-related adverse events, predominantly seen in the fentanyl subgroup, were of mild-moderate severity and not associated with short-term treatment dropout
- Precipitated and persistent withdrawal symptoms were readily managed with buprenorphine dose changes in most cases, or with brief extension of use of comfort medications
- These practice-based data suggest that patients using fentanyl can be successfully induced with buprenorphine using a protocol that emphasizes low initial buprenorphine dose, comfort medications and close follow-up for dose titration
- When coupled with a proactive patient support team working in parallel with clinicians, the telehealth platform is effective for the management of key challenges of OUD treatment in the fentanyl era

AUTHORS & DISCLOSURES

Richard P. Paczynski, MD, Staff Physician, Ophelia Medical Group
Edin Memisevich, AGNP-C, Prescribing Clinician, Ophelia Medical Group
Adam Bisaga, MD, Medical Director, Ophelia Medical Group, Professor of Psychiatry, Columbia University Medical Center
Allison Bernick, PA-C, Clinical Director, Ophelia Medical Group
Arthur Robin Williams, MD, Chief Medical Officer Ophelia Health, Asst Professor of Psychiatry, Columbia University Med. Ctr.
Emily Behar, PhD, Director of Clinical Operations, Ophelia Health
Chris Rowe, PhD, Director of Research and Population Health, Ophelia Health
All authors receive compensation from Ophelia Health, Inc.

REFERENCES

Bisaga A. Overcoming Opioid Addiction. 2018, The Experiment, NY, NY.
Cohen SM, Weimer MB, Levander XA, et al. Low Dose Initiation of Buprenorphine: A Narrative Review and Practical Approach. Addict Med. 2022 Jul-Aug 01;16(4):399-406
Fiellin, DA. Buprenorphine Initiation in the Era of High-Potency Synthetic Opioids: A Call for Community-Based Participatory Research to Help Learning Health Systems Provide Precision Medicine for Opioid Use Disorder. J Addict Med. Sept 27, 2022.
Lee JD, Grossman E, DiRocco D, et al. Home Buprenorphine/Naloxone Induction in Primary Care. J Gen Intern Med 2008; 24(2): 226-232
Moe J, O'Sullivan F, Hohi CH, et al. Short communication: Systematic review on effectiveness of micro-induction approaches to buprenorphine initiation. Addict Behav. 2021 Mar;114: 106740.
National Quality Forum Behavioral Health Final Report, 2016-2017. Department of Health & Human Services.
Simpson SA, Hordes M, Blum J, et al. Barriers to Engagement in Opioid Use Disorder Treatment After Buprenorphine Induction. J Addict Med: 7/8 2022 - Volume 16 - Issue 4 - pp. 479-482.
Varshneya NB, Thakrar AP, Lambert E, et al. Opioid Use Disorder Treatment in the Fentanyl Era. J Addict Med. 7/21, 2022 - Volume - Issue - 10.1097
Wakema SE, Chang Y, Regan S, et al. Impact of Fentanyl Use on Buprenorphine Treatment Retention and Opioid Abstinence. J Addict Med. 2019 Jul/Aug; 13(4): 253-257
Williams AR, Mauro CM, Feng T, et al. Performance Measurement for Opioid Use Disorder Medication Treatment and Care Retention. AJP Psychiatry. Published Online: 26 Oct 2022. <https://doi.org/10.1176/appi.ajp.20220456>