

Initiating Extended-Release Injectable Buprenorphine in Primary Care without a Test Dose

INTRODUCTION

- Despite its efficacy to treat opioid use disorder and recent federal deregulation, buprenorphine remains underutilized¹
- In the context of fentanyl/other high-potency synthetic opioids, optimizing buprenorphine initiation requires strategies to minimize opioid withdrawal symptoms (OWS) and maximize patient satisfaction²
- Standard and low-dose techniques to initiate sublingual buprenorphine (SL-BUP) remain challenging for some.
- Weekly extended-release injectable buprenorphine (XR-BUP) is an effective option for treatment initiation that may overcome the barriers associated with SL-BUP but is currently indicated only after preceding use of SL-BUP^{3,4}
- Weekly XR-BUP initiation for patients with minimal to mild OWS without preceding SL-BUP has been shown to be feasible in emergency departments (EDs)⁵
- To our knowledge, there have been no published reports of weekly XR-BUP initiation without a test dose of SL-BUP in primary care settings.

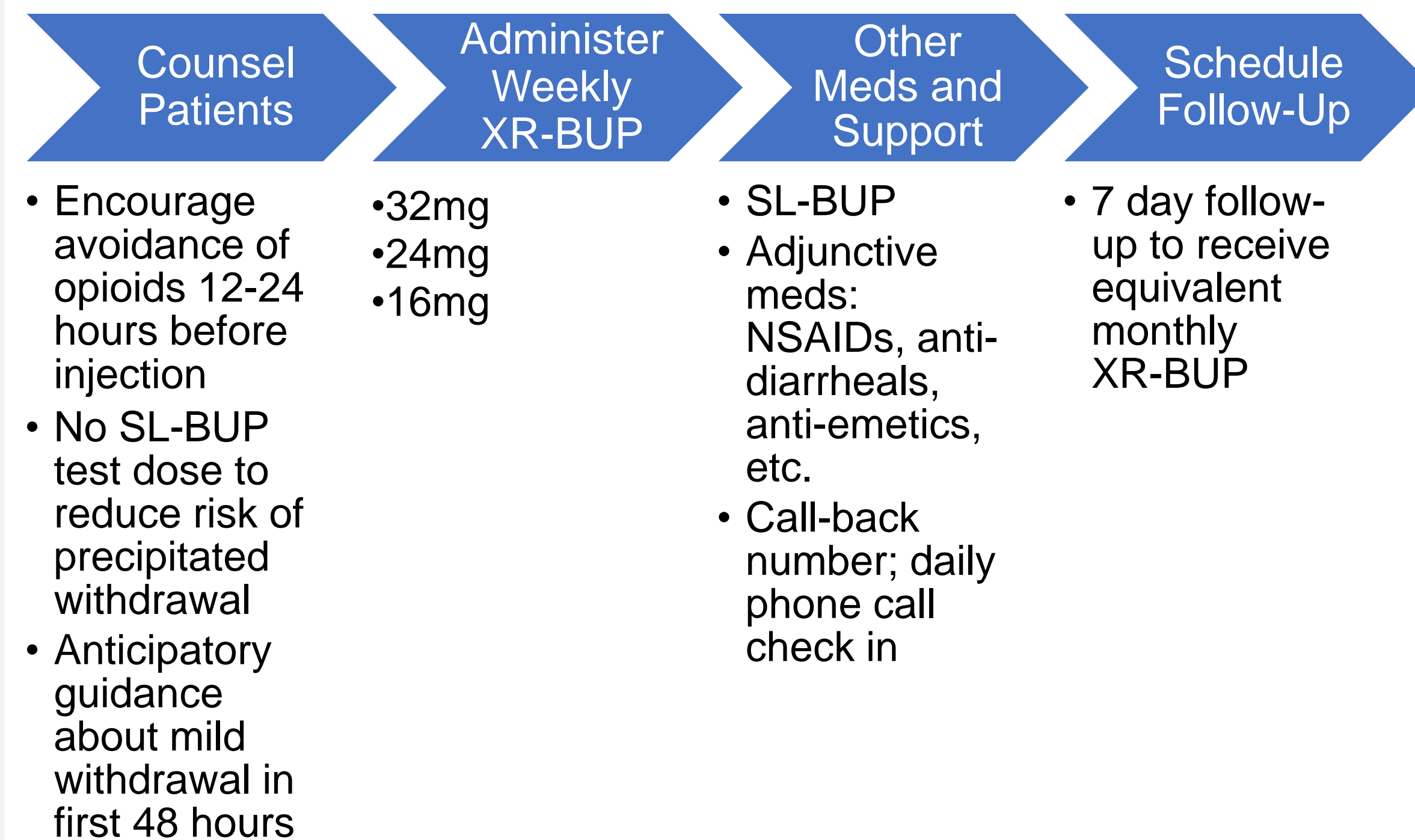
CASE SERIES DESCRIPTION

Between October 2023 and December 2024, 10 patients with untreated OUD were given weekly XR-BUP without a SL-BUP test dose in a primary care clinic (80% Medicaid/Medicare).

Patient Characteristics:

- Mean age 46 years old; 60% male
- 90% reported regular fentanyl use
- All reported history of unsuccessful SL-BUP initiation
- Mean COWS 4.9 prior to receiving weekly XR-BUP
- 80% reported last opioid use in the preceding 5-24 hours
- 70% of patients received 32mg of weekly XR-BUP

Protocol:



PHARMACOKINETICS & DOSING

	XR-BUP weekly	SL-BUP
C avg BUP at steady state (ng/mL)	16mg: 2.1 24mg: 2.9 32mg: 4.2	8mg: 1.19 24mg: 2.91
Time to peak	Within 24 hours	Within 3 hours

Table 1. Comparing steady state concentration and time to peak for weekly XR-BUP and SL-BUP⁴

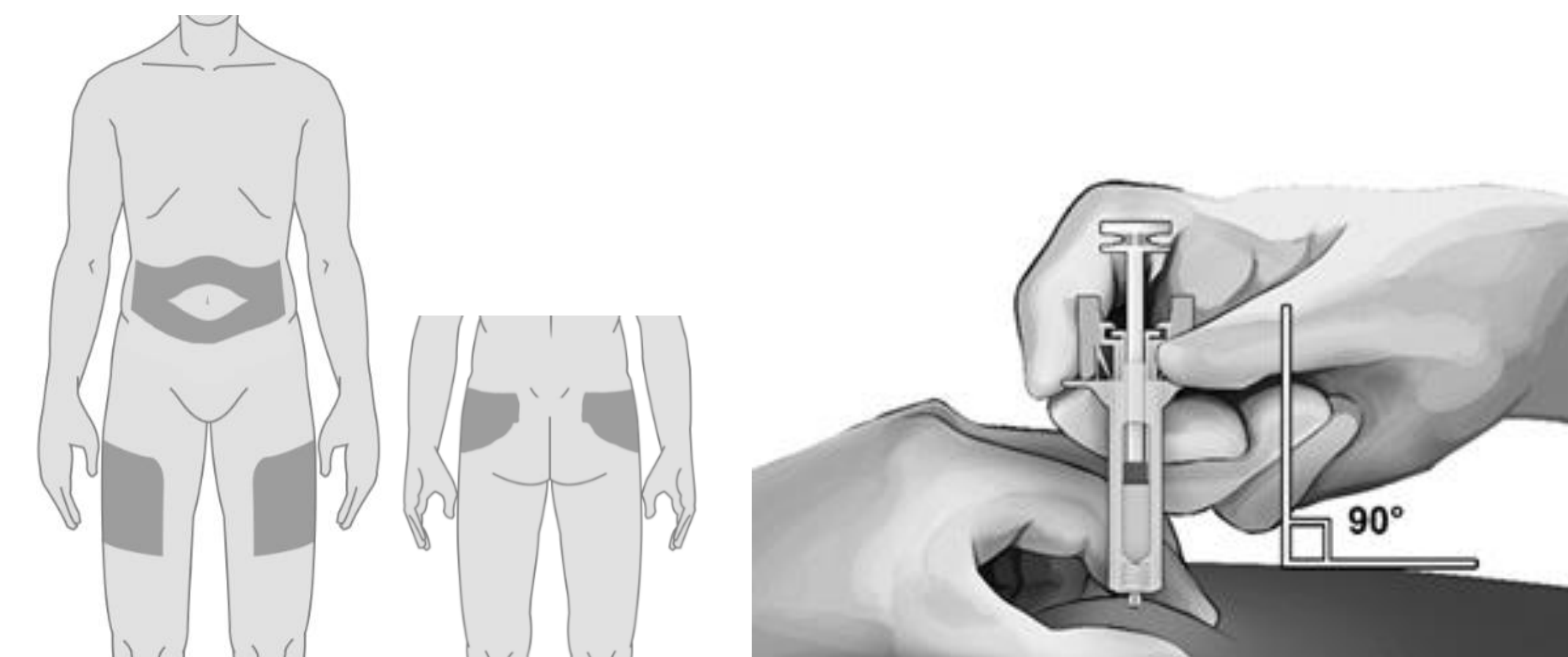


Figure 1. Injection Sites and Technique⁴

SL-BUP	XR-BUP weekly	XR-BUP monthly
≤6 mg	8 mg (0.16 mL)	--
8-10 mg	16 mg (0.32 mL)	64 mg (0.18 mL)
12-16 mg	24 mg (0.48 mL)	96 mg (0.27 mL)
18-24 mg	32 mg (0.64 mL)	128 mg (0.36 mL)

Table 2. SL-BUP dose and approximate equivalent weekly and monthly XR-BUP injections⁴

- All doses are small volume (<1 mL) injections
- Comes in pre-filled syringes with ½ inch 23-gauge needle
- Provider administered

RESULTS

24 Hours Post Injection

- 80% reported subjectively minimal to mild OWS
- 40% took SL-BUP for OWS post injection
- One person, who had not taken SL-BUP post injection, went to ED for gastrointestinal complaints that resolved with a dose of SL-BUP

48 Hours Post Injection

- All patients reported resolution of OWS

Return to Care

- 80% returned for monthly XR-BUP, one transitioned to SL-BUP; one was lost to follow-up.

Patient Testimonial

- "I have not felt this good in a long time and do not wake up sick or feel sick throughout the day"

CONCLUSIONS

- Using weekly XR-BUP initiation without a SL-BUP test dose in a primary care setting for patients with untreated OUD, we found a low proportion of severe OWS and high proportion of buprenorphine continuation, suggesting the technique is feasible and acceptable and may lead to improved retention and engagement.
- This streamlined process may reduce barriers to buprenorphine initiation by:
 - Allowing for same day initiation in the clinic
 - Facilitating completion of treatment initiation after one injection
 - Reduced concern for buprenorphine precipitated withdrawal (due to XR-BUP's slower rise in plasma BUP concentration compared with SL-BUP)
 - Less time spent observing or counseling on initiation techniques
- Limitations: Need for training on XR-BUP administration and insurance barriers that may limit XR-BUP procurement.
- Future research: examine implementation and patient outcomes of XR-BUP initiation without preceding SL-BUP in primary care settings.

AUTHORS & DISCLOSURES

- Linda Wang, MD; Icahn School of Medicine at Mount Sinai; Nothing to Disclose
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