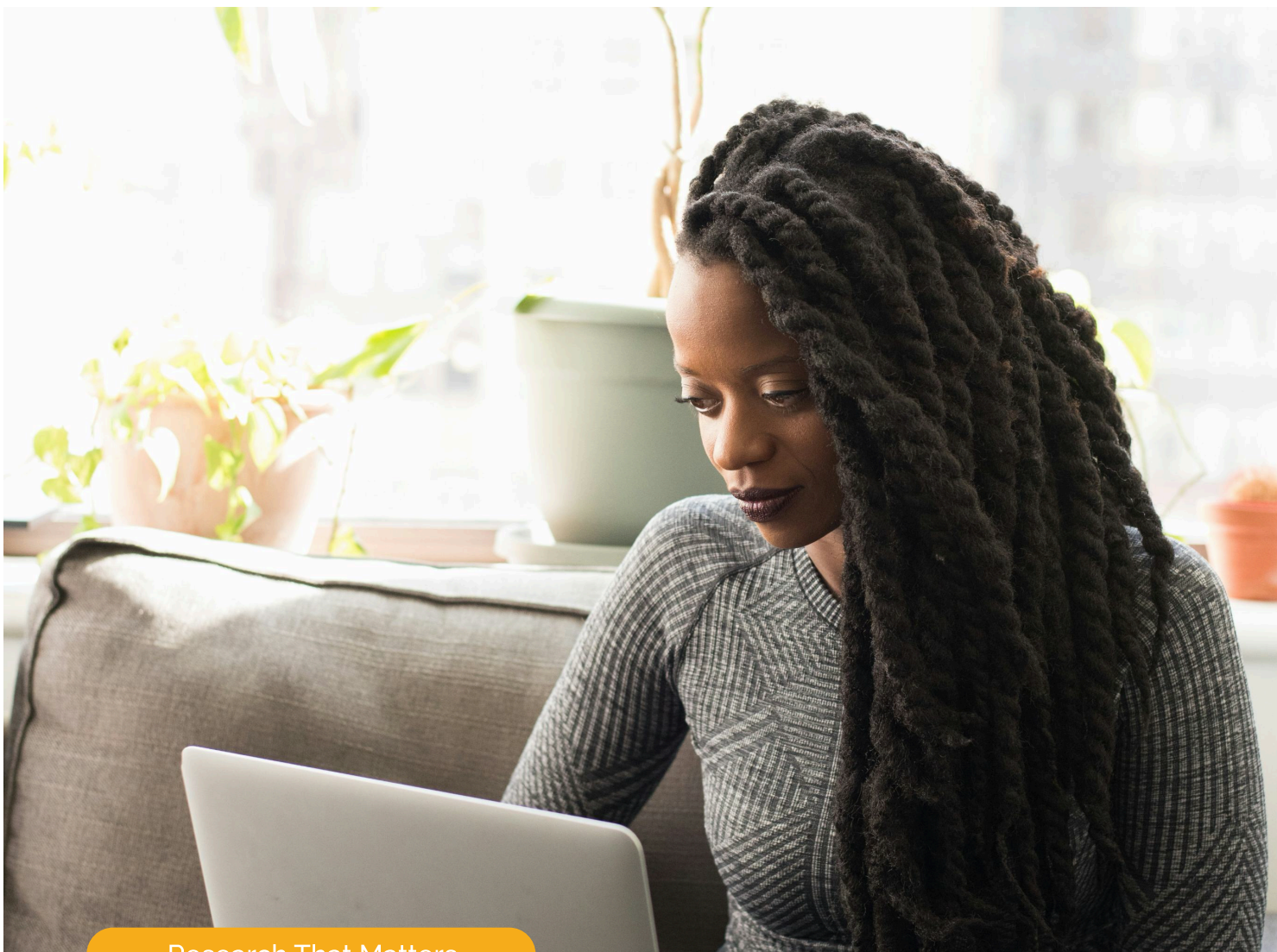




Research That Matters

Extended-Release Injection vs. Sublingual Buprenorphine for Opioid Use Disorder Among Persons Actively Using Illicit Opioids: A Randomized Clinical Trial

Joshua D. Lee, M.D., M.Sc.; Paul Joudrey, M.D., M.P.H.; Marc Larochelle, M.D., M.P.H.; Daniel Schatz, M.D.; Ayana Jordan, M.D., Ph.D.; Evan D. Behrle, B.A.; David P. Pennington, Ph.D.; Kevin Fiscella, M.D., M.P.H.; Babak Tofghi, M.D., M.Sc.; Noa Krawczyk, Ph.D.; Courtney Lenard, Ph.D.; Elie A. Akl, M.D., Ph.D.; Alexander Y. Walley, M.D., M.Sc.

RECADEMY

The Academy for Improving Substance Use Disorder Treatment:
Making Recovery a Reality

Research Summary

This randomized clinical trial compared the effectiveness of extended-release injectable buprenorphine (XR-BUP) to daily sublingual buprenorphine-naloxone (SL-BUP/NX) in individuals actively using illicit opioids, including fentanyl. The study assessed treatment retention, reductions in illicit opioid use, and safety outcomes.

Findings suggest that XR-BUP significantly improves treatment retention compared to SL-BUP/NX, making it a promising option for individuals struggling with adherence to daily medications. However, both treatments effectively reduced illicit opioid use with no major differences between the two groups in that measure.

ACCESS TO THE ARTICLE CAN BE FOUND HERE:

JAMA Network Open:

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2820306>

STUDY DESIGN

- **Design:** Open label, randomized, comparative effectiveness clinical trial
- **Participants:** 119 adults with moderate-to-severe opioid use disorder (OUD) who were actively using illicit opioids, including fentanyl
- **Intervention Groups:**
 - **Extended-Release Buprenorphine (XR-BUP):** Once-monthly injections
 - **Sublingual Buprenorphine-Naloxone (SL-BUP/NX):** Daily sublingual doses
- **Duration:** 24 weeks (6 months)
- **Setting:** Outpatient addiction treatment programs in the United States
- **Primary Outcome:** Treatment retention at 24 weeks
- **Secondary Outcomes: Reduction in illicit opioid use,** measured via:
 - Urine drug screens
 - Self-reported opioid use
 - Safety and adverse event monitoring



STUDY FINDINGS

1. Treatment Retention:

- Higher retention rates in XR-BUP group (once-monthly injection) compared to SL-BUP/NX (daily dose).
- Retention at 24 weeks:
- XR-BUP: 68.2% remained in treatment
- SL-BUP/NX: 52.5% remained in treatment
- Statistical significance: $P = 0.04$ → XR-BUP retention was significantly better

2. Reduction in Illicit Opioid Use:

- Both treatment groups demonstrated similar opioid-use outcomes, with no significant differences observed between XR-BUP and SL-BUP/NX.
- No significant difference in opioid-negative urine tests between the two groups.
- Key implication: XR-BUP does not necessarily reduce opioid use more than SL-BUP/NX, but it helps more patients stay in treatment, which is critical for long-term success.

3. Safety and Tolerability:

- Both treatment arms had similar rates of adverse events.
- Injection site reactions were mild and not a major barrier to XR-BUP adherence.

STUDY LIMITATIONS & FUTURE DIRECTIONS

Limitations:

- Open-label design → Participants and clinicians knew which treatment was being administered, potentially introducing bias.
- Limited generalizability: Study included only actively using individuals, so results may not apply to patients who have already achieved some level of abstinence.
- Did not measure long-term relapse rates beyond 24 weeks.

Future Directions:

- Long-term studies needed to evaluate how XR-BUP impacts sustained abstinence beyond 6 months.
- Additional comparative studies evaluating XR-BUP alongside other evidence-based OUD treatments could further inform treatment decision-making.
- Cost-effectiveness research to determine if XR-BUP leads to lower healthcare costs over time by reducing relapse and hospitalizations.



Clinical Implications of the Research

FOR PAYERS

- Cost-Effectiveness:
 - Improved treatment retention may have downstream implications for healthcare utilization and costs, warranting further study.
- Reimbursement Considerations:
 - Given its effectiveness, payers should consider expanding coverage for XR-BUP to increase access.

FOR PROVIDER ORGANIZATIONS & HEALTH SYSTEMS

- Resource Allocation:
 - Monthly administration may offer operational advantages compared with daily medication management approaches.
- Implementation Considerations:
 - Clinics should invest in training providers on XR-BUP administration and infrastructure for long-acting medication management.

FOR CLINICAL PROFESSIONALS

- Enhanced Treatment Options:
- XR-BUP offers a monthly alternative for patients who struggle with daily medication adherence.
- Patient Counseling:
- Providers should emphasize that staying in treatment is the most critical factor in reducing harm, even if opioid use continues at low levels.

FOR CONSUMERS

- Improved Convenience & Adherence:
- Monthly injections reduce the burden of remembering daily doses.
- Greater Stability:
- Higher retention rates suggest XR-BUP may provide more stability and structure, which can be crucial for recovery.

Administrative & Business Implications

FOR PAYERS

- Reimbursement Policies:
 - XR-BUP's higher retention rates may be considered when evaluating coverage and access policies.
- Cost Savings Potential:
 - Fewer relapses may translate to lower emergency department and hospitalization costs.

FOR PROVIDER ORGANIZATIONS & HEALTH SYSTEMS

- Operational Considerations:
 - Monthly administration may streamline certain aspects of medication management compared with daily dosing models.
- Quality Improvement Metrics:
 - Tracking treatment retention and patient-reported outcomes will be key in assessing XR-BUP's impact.

FOR CLINICAL PROFESSIONALS

- Education & Training:
 - Ensuring providers understand proper XR-BUP administration is critical to successful adoption.

Other Considerations

- **Integration into Broader Treatment Models:** XR-BUP should be incorporated into comprehensive care models, including behavioral health and social support services.
- **Quality Metrics & Reporting:** Health systems should track treatment retention and opioid use outcomes to measure XR-BUP's effectiveness.
- **Patient Engagement & Education:** Ensuring patients understand their treatment options is key to improving adherence.



The Academy for Improving Substance Use Disorder Treatment:
Making Recovery a Reality™

CITATION

Lee JD, Joudrey PJ, Larochelle MR, et al. Extended-Release Injection vs Sublingual Buprenorphine for Opioid Use Disorder Among Persons Actively Using Illicit Opioids: A Randomized Clinical Trial. JAMA Netw Open. 2024;7(2):e240163. doi:[10.1001/jamanetworkopen.2024.0163](https://doi.org/10.1001/jamanetworkopen.2024.0163)

ARTICLE LINK

[JAMA Network Open – February 21, 2024](#)